

# EXPANDING PASSENGER RAIL SERVICE

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(111-44)

FIELD HEARING  
BEFORE THE  
SUBCOMMITTEE ON  
RAILROADS, PIPELINES, AND HAZARDOUS  
MATERIALS  
OF THE  
COMMITTEE ON  
TRANSPORTATION AND  
INFRASTRUCTURE  
HOUSE OF REPRESENTATIVES  
ONE HUNDRED ELEVENTH CONGRESS  
FIRST SESSION

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June 22, 2009 (Pittsburgh, Pennsylvania)

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**U.S. House of Representatives**  
**Committee on Transportation and Infrastructure**  
 Washington, DC 20515

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June 18, 2009

**SUMMARY OF SUBJECT MATTER**

**TO:** Members of the Subcommittee on Railroads, Pipelines, and Hazardous Materials

**FROM:** Subcommittee on Railroads, Pipelines, and Hazardous Materials Staff

**SUBJECT:** Hearing on "Expanding Passenger Rail Service"

**PURPOSE OF HEARING**

The Subcommittee on Railroads, Pipelines, and Hazardous Materials will meet on Monday, June 22, 2009, at 10:00 a.m., in room 6A of the United States Post Office and District Courthouse located at 700 Grant Street in Pittsburgh, Pennsylvania to receive testimony on the need for expanding passenger rail service across the nation and the benefits of expansion. The hearing will also highlight the need for more passenger rail service in Pennsylvania.

**BACKGROUND**

Our nation's transportation system is near capacity, with gridlock on our highways and in our airspace. In 2006, there were more than three trillion vehicle miles traveled, five times the level in 1955. This figure is roughly double the nation's total mileage traveled in 1980, and more than four times the total mileage traveled in 1957, the Interstate's first year.

According to the Texas Transportation Institute's *2007 Urban Mobility Report*, the wasted fuel and time resulting from this congestion has translated into a total congestion cost of \$78.2 billion in 2005—\$5.1 billion higher than in 2004. The report also found that congestion causes the average peak-period traveler to spend an extra 38 hours of travel time, 26 gallons of fuel, and amounts to a cost of \$710 per traveler. According to the report, in the 14 largest urban areas in the nation, the amount of travel delay grew approximately 350 percent from 1982 to 2005. The average driver in 28

metropolitan areas experienced 40 or more hours of delay per year. Accidents and traffic delays cost Americans more than \$365 billion a year – \$1 billion a day – or \$1,200 for every man, woman, and child in the nation.

Our nation's airways fared no better. Despite record passenger loadings of 765.3 million domestic and international passengers in 2007, delays in the nation's aviation system delivered a staggering blow to the economy, costing passengers, airlines and related businesses \$41 billion, according to a congressional study. In FY 2008, U.S. airlines continued to meet demand, carrying 757.4 million passengers, but the impact of unprecedented fuel prices and a recession have caused airlines to cutback capacity through reductions and elimination of routes leaving consumers to vie for less choices and capacity.

The U.S. Department of Transportation (DOT) has described the resulting increase in congestion as "chronic." Moving passengers to railways can have an immediate impact on highways and airways, alleviating congestion, and reducing the use of and pollutants from fossil fuels.

One 75-foot wide rail corridor can carry the same number of persons per hour as a 16-lane expressway, while emitting fewer pollutants and consuming less energy per passenger mile. Capacity can be added to many existing rail corridors at a lower cost with track and signal improvements, modern train sets, or high-speed rail.

Rail travel is six times safer than highway travel, and worldwide is the one of the safest mode of transportation. In 2008, there were 2,414 train accidents (freight and passenger), resulting in 27 fatalities and 282 injuries. In addition, there were 2,391 train accidents at highway-rail grade crossings, resulting in 286 fatalities and 935 injuries. In comparison, in 2007, there were more than six million police-reported motor vehicle traffic crashes, resulting in 41,059 fatalities and nearly 2.5 million injuries.

Increased travel by rail stimulates economic activity and spurs private investment in urban areas and central business districts around rail stations. Rail service grants the freedom of mobility to those unable to easily use our air and highway systems because of age, physical disabilities, health problems, or economic circumstances, while reducing our dependence on foreign oil.

Investment in the expansion of passenger rail service will also encourage economic growth through the creation of highly skilled, good paying jobs. In March 2009, the Bureau of Labor Statistics reported that the roles of the unemployed swelled to 13.2 million. When part-time and discouraged workers who want full-time jobs are included, the number of unemployed/under-employed workers increases to 24.3 million. In Pennsylvania, the Bureau of Labor Statistics reported that 499,911 people were unemployed in April 2009 (7.8 percent), compared to 290,266 in December 2007 (4.6 percent).

Since the recession began in December 2007, one of the hardest hit sectors has been in construction where unemployment rates have reached over 21 percent. Since that time, over 1,050,000 jobs have been lost in the construction sector. Expanding passenger rail infrastructure will create jobs, not only in the construction sector of the economy, but in the manufacturing and service sectors as well.

To address our nation's economic, energy, environmental, and transportation challenges, our nation needs to continue expanding passenger rail service and invest in high-speed rail. In 2007, the Passenger Rail Working Group of the National Surface Transportation Policy and Revenue Study Commission reported that the total capital cost estimate of re-establishing the national intercity passenger rail network between now and 2050 is approximately \$357.2 billion or \$8.1 billion annually.

### **Passenger Rail Expansion Needs**

After decades of declining passenger rail service and consequent revenue decline from intercity passenger trains, Congress created the National Railroad Passenger Corporation, more commonly known as Amtrak in 1970. Amtrak was tasked with taking over passenger services nationwide and rebuilding the rail passenger system into a modern, efficient conveyance.

Today, Amtrak operates a rail network across 46 states, serving more than 500 destinations on 21,000 miles of routes with its nearly 18,000 employees. In its sixth straight year of record ridership, Amtrak served around 78,000 passengers per day on its 300 trains, totaling more than 28.7 million passengers nationwide during fiscal year 2008. With ongoing concerns over congestion and our dependence on foreign oil, rising gas prices, and greenhouse gas emissions, both Amtrak and the States continue to look for opportunities to expand passenger rail service.

Adequate investment in passenger railroad infrastructure is crucial for national economic growth, global competitiveness, the environment, and quality of life. Continued efforts to expand passenger rail services are critical to maintain an effective nationwide system as well as to advance Congress' and the President's vision for the development of high-speed rail in the United States.

### **Legislation**

On October 16, 2008, Congress addressed the need for the development of passenger rail by signing the Passenger Rail Investment and Improvement Act (P.L. 110-432) (PRIIA). PRIIA reauthorized Amtrak and provided a total of \$13.06 billion over five years to encourage the development of new and improved intercity passenger rail service through an 80-20 Federal/State matching grant program and help to bring the Northeast Corridor to a state-of-good-repair.

Of the \$13.06 billion, PRIIA authorized \$5.315 billion (an average of \$1.063 billion per year) to Amtrak for capital grants, and \$2.949 billion (an average of \$589.8 million per year) for operating grants. It also authorized \$1.9 billion for a new State Capital Grant program for intercity passenger rail projects. This program provides \$325 million for "congestion grants" to Amtrak and the States for high-priority rail corridors to increase capacity along certain lines to reduce congestion and facilitate ridership. PRIIA further provided \$1.5 billion over five years for development of high-speed rail on the 11 designated corridors.

On February 17, 2009, the American Recovery and Reinvestment Act of 2009 (P.L. 111-5) (Recovery Act) was signed into law. The Recovery Act provides \$64.1 billion of infrastructure investment of which \$9.3 billion is dedicated for passenger rail. This includes \$8 billion in grants to States for development of intercity passenger and high-speed rail, with the President's budget proposing additional funding for each of the next five years for the advancement and development



of high-speed rail throughout the nation. In addition, the Recovery Act provided \$1.3 billion for capital improvements to Amtrak.

#### **Pennsylvania Passenger Rail Service**

Pennsylvania is currently served by five key Amtrak intercity rail corridors and routes. These routes include the Keystone Corridor, Capitol Limited Route, Pennsylvanian, the Lake Shore Limited Route, and the Northeast Corridor. In 2008, three of Amtrak's busiest stations were in Pennsylvania: Philadelphia 30th Street Station was ranked the third busiest station; Harrisburg was ranked 21<sup>st</sup>; and Lancaster 22<sup>nd</sup>. At the end of FY08, Amtrak employed 2,539 Pennsylvania residents. These five routes are detailed below:

The Keystone Corridor is a 104-mile Amtrak-owned line between Harrisburg and Philadelphia (through Lancaster). The DOT has designated the Keystone Corridor as a high-speed corridor. Amtrak runs between 11 and 14 trains per day in each direction.

The Capitol Limited Route operates from Chicago to Washington, D.C. with only one Pennsylvania stop in Pittsburgh. From Washington D.C. to Pittsburgh PA, Amtrak runs on track owned by the CSX Corporation (CSX), a freight rail company. From Pittsburgh, PA to Chicago, IL, Amtrak operates on track owned by Norfolk Southern. This route operates one train east and one train west each day.

The Pennsylvanian service run by Amtrak operates from Chicago, IL to New York City, NY through Pittsburgh, Harrisburg and Philadelphia, PA. From Chicago, IL to Harrisburg, PA, Amtrak operates on both CSX and Norfolk Southern owned track. It then connects with Amtrak owned track on the Keystone Corridor line. Amtrak operates this service once daily. The Federal Railroad Administration (FRA) has designated the Pittsburgh to Philadelphia portion (including the Keystone Corridor) of this route as a high-speed rail corridor.

The Lake Shore Limited route operates from Chicago, IL to one of two final destinations, either New York City, NY or Boston, MA. Amtrak has only one stop in Pennsylvania along this route in Erie, PA. Amtrak operates on CSX track along the Pennsylvania Panhandle. Amtrak operates service on the Lake Shore Limited route once daily in each direction.

The Northeast Corridor operates between Washington, D.C. to Boston, MA through Philadelphia, PA. This route is run on Amtrak-owned track. Amtrak operates 17 trains, weekdays in each direction (Washington D.C. to Boston, MA) with stops in Philadelphia; on weekends, seven trains stop in Philadelphia, PA on Saturday and 10 trains on Sunday.

In total, in the State of Pennsylvania, Amtrak operates approximately 120 trains a day through its Acela Express, Keystone Corridor, and Regional Service. In addition, Amtrak operates the following long and short-distance routes:

#### **Long Distance:**

- Capitol Limited (daily Washington-Pittsburgh-Chicago)
- The Cardinal (tri-weekly New York-Washington-Cincinnati-Chicago)

- The Crescent (daily New York-Atlanta-New Orleans)
- The Lake Shore Limited (daily New York/Boston-Erie-Chicago)
- The Palmetto (daily New York-Philadelphia-Savannah)
- The Silver Meteor (daily New York-Philadelphia-Miami)
- The Silver Star (daily New York-Philadelphia-Tampa-Miami)

Shorter-distance routes:

- The Pennsylvanian (daily New York- Philadelphia-Harrisburg-Pittsburgh)
- The Carolinian (daily New York-Richmond-Charlotte)
- The Vermonter (daily Washington, DC-St. Albans, Vt.)

As a State, Pennsylvania enjoys a higher-than-average level of passenger rail service. However, in Western Pennsylvania, there is very little rail service. There are only three lines, with stops in Western Pennsylvania (Capitol Limited, Lake Shore Limited, and Pennsylvanian), and each line has only one daily roundtrip. Of those three lines, only the Pennsylvanian serves the communities west of Harrisburg, including Lewistown, Huntingdon, Tryone, Altoona, Johnstown, Latrobe, and Greensburg.

Section 224 of PRIA requires Amtrak to conduct a study of several routes including two in Pennsylvania. First, Amtrak must study the route between Harrisburg and Pittsburgh, Pennsylvania, to determine whether to increase frequency of passenger rail service along the route or along segments of the route. Second, Amtrak must study the Capitol Limited route between Cumberland, Maryland, and Pittsburgh, Pennsylvania, to determine whether to reinstate a station stop at Rockwood, Pennsylvania. These studies are due to be completed by October 16, 2009.

WITNESSES

**Mr. Robert Ardolino**  
CEO  
Urban Innovations

**Mr. Toby L. Fauver, AICP**  
Deputy Secretary for Local and Area Transportation  
Commonwealth of Pennsylvania

**Mr. Robert Fescemyer**  
Mayor  
Oakmont

**Mr. Christopher K. Gleason**  
CEO/Chairman  
Gleason Financial

**Dr. Fred Gurney, PhD**  
President and CEO

Maglev, Inc.

**Mr. Kenneth Joseph**  
Member, Council of Representatives  
National Association of Railroad Passengers

**Mr. Ray Lang**  
Senior Director for National State Relations  
National Railroad Passenger Corporation (Amtrak)

**Mr. Patrick J. McMahon**  
President  
Amalgamated Transit Union Local 85

**Mr. Daniel W. Sieminski**  
Associate Vice President for Finance and Business  
Penn State University

**Mr. Lorenzo Simonelli**  
President and CEO  
GE Transportation

**Mr. Mark E. Yachmetz**  
Associate Administrator for Railroad Development  
Federal Railroad Administration

**Mr. David E. Wohlwill, AICP**  
Manager of Extended Range Planning  
Port Authority of Allegheny County



## EXPANDING PASSENGER RAIL SERVICE

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MONDAY, JUNE 22, 2009

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON RAILROADS, PIPELINES, AND  
HAZARDOUS MATERIALS  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE  
*Washington, DC.*

The Subcommittee met, pursuant to call, at 10:04 a.m., at United States Post Office and District Courthouse, 700 Grant Street, Court Room 6A, Pittsburgh, Pennsylvania, Hon. Jason Altmire [Chairman of the Subcommittee] presiding.

Mr. ALTMIRE. I call this hearing to order.

Thank you all for being here today for this Transportation Committee for the United States House of Representatives field hearing. Today's hearing will examine the essential role that passenger rail plays in America's transportation infrastructure and the necessity for expanding its service and efficiency.

Our Nation's transportation system is near capacity with gridlock on our highways and in our airspace. In 2006, there were more than 3 trillion vehicle miles traveled, roughly double what was traveled in 1980 and more than four times the total miles traveled in 1957, the first year of the interstate.

Our Nation's airways have fared no better. Despite record passenger loadings, delays in the Nation's aviation system delivered a staggering blow to the U.S. economy. In fiscal year 2008, U.S. airlines continued to meet demand, carrying 757.4 million passengers, but the impact of unprecedented fuel prices and an overall recess have caused airlines to cut back capacity by reducing and eliminating routes, leaving consumers to vie for fewer travel options.

The U.S. Department of Transportation has described the current congestion on our highways and our air infrastructure as chronic. Moving passengers to railways can have an immediate impact on highways and airways, alleviating congestion, reducing consumption, consequences and our dependence on fossil fuels.

Since its origins in 1970, the National Railroad Passenger Corporation, also known as Amtrak, has been tasked with facilitating passenger services nationwide and rebuilding the rail passenger system into modern, efficient systems. Today, Amtrak operates a rail network across 46 States serving more than 500 destinations and 21,000 miles of routes with its nearly 18,000 employees. In its sixth straight year of record ridership, Amtrak served around 78,000 passengers per day on its 300 trains, totaling more than 28.7 million passengers nationwide during fiscal year 2008. Given the ongoing concerns with congestion and our dependence on for-

eign oil, rising gas prices and greenhouse gas emissions, both Amtrak and the States continue to look for opportunities to expand passenger rail service.

Adequate investment in passenger railroad infrastructure is crucial for national economic growth, global competitiveness, the environment and our quality of life. Continued efforts to expand passenger rail service are critical to maintaining an effective nationwide system as well as to advance Congress and the President's vision for development of high-speed rail corridors throughout the United States.

One 70-foot-wide rail corridor can carry the same number of persons per hour as a 16-lane expressway, emitting fewer pollutants and consuming less energy per passenger mile. Capacity can be added to many existing corridors at lower cost than comparable highway improvements using modern train sets or high-speed rail.

Rail travel is six times safer than highway travel and in fact is the safest mode of transportation available worldwide. Increased travel by rail stimulates economic activity and spurs private investment in urban areas and central business districts around rail stations. Rail service grants the freedom of mobility to those unable to easily use our air and highway systems because of age, physical disabilities, health problems or economic circumstances and reduces our dependence on foreign oil.

Investments in expansion of passenger rail service will also encourage economic growth through the creation of highly skilled, good-paying jobs. Since the recession began in December 2007, one of the hardest hit sectors has been in construction, which has seen unemployment rates approaching 21 percent. Since that time, over a million jobs have been lost in the construction sector alone. Expanding passenger rail infrastructure will create jobs, not only in the construction sector of the economy but in manufacturing and service sectors as well. And in order to address our Nation's economic, energy, environmental and transportation challenges, we need to continue expanding passenger rail service and invest in high-speed rail.

On February 17, 2009, the American Recovery and Reinvestment Act of 2009 was signed into law. The Recovery Act provides \$9.3 billion dedicated to passenger rail including \$8 billion in grants to States for development of intercity passenger and high-speed rail and \$1.3 billion for capital improvements to Amtrak. Additionally, the President's budget proposes additional funding for each of the next 5 years for the advancement and development of high-speed rail corridors throughout the Nation.

Pennsylvania is currently served by five key Amtrak intercity rail corridors and routes. In 2008, three of Amtrak's busiest stations were in Pennsylvania. Philadelphia 30th Street Station was ranked the third busiest in the Nation, Harrisburg was 21st and Lancaster was 22nd. But we are here in Pittsburgh.

In the Passenger Rail Investment and Improvement Act, Amtrak was tasked to study the routes between Harrisburg and Pittsburgh and the Capitol Limited route between Cumberland, Maryland, and Pittsburgh. We await completion of these studies, which is set for October, but I know that Pittsburgh, like all major American cities, stands to benefit from increased passenger rail service. Examining

the growth potential and eventually facilitating the service is a goal of mine and other Members of this Subcommittee. I look forward to hearing the testimonies from our esteemed and informed witnesses today and I look forward to a brighter future for passenger rail service in western Pennsylvania and throughout America.

I want to thank my friend, Congressman Shuster on the Transportation Committee for being here today. This is something that we have talked about for a long time and a goal that we share, and I am especially grateful that Congressman Murphy has joined us as well, and at this time I ask unanimous consent for all Members of the House to participate in this mornings' hearing and to ask questions of the witness. Without objection, so ordered.

And I would turn it over to Congressman Shuster for his opening statement.

Mr. SHUSTER. Thank you very much, Mr. Altmire. Thank you for chairing this morning's hearing. This is an important hearing and I appreciate the witnesses being here to be able to shed some light and give their views on how we can improve passenger rail service in Pennsylvania but more importantly as we look from Harrisburg west to Pittsburgh how we can improve rail service.

As Chairman Altmire has mentioned, he and I have been working for the past couple months, it might even be several months—time flies—but we have worked together to try to organize and hold this hearing today. So again, I want to thank you for all of you being here and look forward to hearing your testimony on how we can improve rail service in western Pennsylvania.

In 2006, the Pennsylvania Department of Transportation partnering with Amtrak completed about \$140 million worth of improvements to the 104-mile Keystone Corridor between Philadelphia and Harrisburg. This brought travel time between those cities down to about 90 minutes and allowed maximum speeds of up to 110 miles an hour, which they average about 69 miles an hour, and that is the fastest passenger train speeds in the United States outside the Northeast Corridor. Another staggering figure to me is that over the last 3 years they have seen about a 20 percent increase in ridership, and over the last 3 years combined about a third more people are riding on that line today, and I think that just goes to show you what increasing the speed and efficiency and frequency can do to passenger rail in this country, and that Keystone Corridor should be a model that we can take out not only in Pennsylvania but across this country to show evidence that it works.

Presently, Amtrak operates 14 daily round trips on the Keystone Corridor, however, west of Harrisburg it is another story. There is only one round trip on Amtrak's Pennsylvania route between Harrisburg and Pittsburgh, and the ride takes 5-1/2 hours to go 250 miles. The same trip takes 4 hours to drive or to ride on the new twice-daily Steel City Flier, the intercity bus service.

But transportation services are not just about savings. They are also about access. There are a number of underserved Pennsylvania communities between Harrisburg and Pittsburgh including Altoona, Johnstown and the home of the ninth largest public university campus in the Nation, State College, Pennsylvania. With an

enrollment of more than 44,000 students at the University Park campus as well as major conferences and festivals at Penn State year round, not to mention the popularity of the Nittany Lions Big Ten football at least six weekends a year, there is a clear need for improved transportation service to State College. This is a major population center with a built-in transit and rail constituency and we are missing a very real opportunity by not providing passenger rail service to State College.

By the 1970s, after many years of decline and disinvestment, the railroad system in the United States had fallen in a state of disrepair. Dozens of railroads that carried both freight and passengers went bankrupt and the U.S. government was forced to step in and pick up the pieces. Wisely, our predecessors passed the Staggers Act of 1980, a law that deregulated railroads and allowed the rail renaissance to take hold. In the past 30 years, the freight railroads in this country have enjoyed phenomenal growth and profitability not seen for generations.

Unfortunately, an area that has lagged up until very recently is passenger rail. Amtrak took over all intercity passenger city in this country in the 1970s and competitive forces have not taken hold in this market for a number of reasons. In Congress, we have acted to broaden competition for rail service and providing more realistic funding levels for Amtrak so that the railroad does not have to be on life support. Last year President Bush signed into law a bill that would first time allow private operators to run services over current Amtrak routes. In addition, the law directs the Secretary of Transportation to solicit proposals for high-speed rail for the private sector.

Since this law was passed, the new Administration has taken the ball and run with it. Congress appropriated \$8 billion in the American Recovery and Reinvestment Act and the Administration has requested another \$5 billion for high-speed rail over the next 5 years. In the new surface transportation authorizing bill, which we are going to be taking up shortly in the House, the Highways and Transit Subcommittee this week significantly ups the ante by proposing \$50 billion for high-speed rail over the next 6 years.

The time for improved passenger rail has come in the United States. Cities like Pittsburgh need alternatives to crowded highways and congested airports. Rail is clean, safe, fast, convenient and creates opportunities for economic development along the rail corridor and around the stations. I believe we are about to experience a new era in passenger rail in this country. I want western Pennsylvania to participate in the new era and enjoy the benefits of increased and expanded passenger rail service.

I look forward to hearing your testimony and thank you for being here today.

Mr. ALTMIRE. Congressman Tim Murphy.

Mr. MURPHY. Thank you, Congressman Altmire and Congressman Shuster. Thank you for inviting me to join you today for this Transportation Subcommittee hearing on rail.

Pittsburgh has an interesting history on rail and an interesting history of where it is. Two hundred and fifty years ago, this was the battleground of the French and Indian War, and as part of that, you had folks like General Braddock and General Forbes and



Colonel Washington and others trying to get there from here, wherever there was, and they found it quite difficult as it would take days of rough travel through the mountains to get into the fork of the rivers back then some years ago, hauling freight between Philadelphia and Pittsburgh, 300 miles or so. Later on it took 3 weeks or longer even in the best of conditions, oftentimes on wooden plank roads. Then we moved to canals, inclines and tunnels to come through this geographic barrier, and although nowadays we don't send whiskey back and forth to the East, we do still have a need for transportation, and it is interesting over the years how this has become something of an island. As the Pittsburgh has cut its flights from USAir's 600-plus flights a day coming in and out of Pitt Airport, down to less than 50, we recognize a better transportation system here is critically linked as both something to build business and as a barrier for economic development.

It is interesting that an Amtrak train from Pittsburgh, you don't have a lot of choices. You can basically if you want to go to Harrisburg take the 7:20 out of Pittsburgh, arrive a little before 1:00 in the afternoon, and if you want to come back leave at 2:36 and arrive at 8:05 p.m. It is \$36, which is much cheaper than the nearly \$500 flight, but the question is, can we make it convenient, clean and comfortable and get passengers back on board?

And that is where we recognize that all these years later from when the Pennsylvania Railroad connected Pittsburgh and Philadelphia and a time when traffic was cut to 14 hours and now it is only 7-1/2 hours across the State, we still have far to go, both figuratively and time-wise. It is critically important we shorten the time of this route, we make it smooth and comfortable, we make sure that the rail lines are available for Amtrak traffic or other rail lines and they don't have to be shared with freight lines. And we are certainly open to listen to every possibility what we can do to make this system uncongested, because it is already safe to travel by train but it is unfortunate that most people never think of getting there because with just one train a day, it is hardly convenient for people doing business throughout the Commonwealth.

I note as someone who sometimes travels the route from Washington, from Philadelphia, New York on the train, it is amazing how the trains are packed with people because they are clean, comfortable and convenient and high speed, and yet back here in the western part of the State, we have perhaps neglected ourselves and it is important that this Committee and Congress takes a more active role in pushing for high-speed rail to connect us to the rest of the area. It is not going to come by plane without massive amounts of investment, and it is interesting that the investments made for train are a fraction of those needed for other highway development.

I hope to learn more in this hearing today about what we can do from the ideas from the many witnesses and look forward to Congress taking some clear and positive action to make sure we have a good rail system, high-speed system that operates out of Pittsburgh.

With that, I yield back.

Mr. ALTMIRE. Thank you to you both, and we are going to introduce the first panel of witnesses. Many of you have testified many times before but I would remind all witnesses the way the time

system works. You see the red, yellow and green lights there. The green light means you have 5 minutes to speak. When the light turns yellow, you have 1 minute remaining, please begin to summarize and wrap up your remarks. When the red light hits, you are out of time. We have a lot of witnesses to go through so let us try to stay on time if we could.

I am pleased to introduce our first panel of witnesses. We have Mr. Mark Yachmetz, who is associate administrator for railroad development at the Federal Railroad Administration of the U.S. Department of Transportation. Next, we have MR. Roby Fauver, who is deputy secretary for local and area transportation of the Pennsylvania Department of Transportation. We have Mr. Ray Lang, senior director for national State relations for Amtrak. We have Mr. Christopher Gleason, the CEO and chairman of Gleason Financial. We have Mr. Henry Posner, chairman of the Railroad Development Corporation, and finally, we have Mr. Ken Joseph, member of the Council of Representatives of the National Association of Railroad Passengers.

Let me remind the witnesses that under our Committee rules, oral statements must be limited to 5 minutes but your entire statement will appear in the record. Welcome to you all. We are very pleased to have you all here this morning and we will begin with Mr. Yachmetz. Welcome.

**TESTIMONY OF MARK E. YACHMETZ, ASSOCIATE ADMINISTRATOR FOR RAILROAD DEVELOPMENT, FEDERAL RAILROAD ADMINISTRATION; TOBY L. FAUVER, AICP, DEPUTY SECRETARY FOR LOCAL AND AREA TRANSPORTATION, PENNSYLVANIA DEPARTMENT OF TRANSPORTATION; RAY LANG, SENIOR DIRECTOR FOR NATIONAL STATE RELATIONS, NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK); CHRISTOPHER GLEASON, CEO/CHAIRMAN, GLEASON FINANCIAL; HENRY POSNER III, CHAIRMAN, RAILROAD DEVELOPMENT CORPORATION; AND KENNETH JOSEPH, MEMBER, COUNCIL OF REPRESENTATIVES, NATIONAL ASSOCIATION OF RAILROAD PASSENGERS**

Mr. YACHMETZ. Mr. Chairman, Ranking Member Shuster and Members of the Subcommittee, I am honored to appear before you today on behalf of Federal Railroad Administrator Szabo and Secretary of Transportation Ray LaHood to discuss the potential for improvements in intercity passenger rail and in particular to discuss one of the most significant initiatives of President Obama, Vice President Biden and Secretary LaHood, and that is the development of high-speed rail transportation in America. To supplement this testimony, I wish to incorporate by reference two recent publications by FRA, Vision for High-Speed Rail in America, which we put out in April, and High-Speed Intercity Passenger Rail Interim Program Guidance, which we put out last week. Both documents are available on FRA's website, [www.fra.dot.gov](http://www.fra.dot.gov).

Mr. ALTMIRE. Without objection, we will enter both of those into the record.

Mr. YACHMETZ. Thank you.

America faces a new set of transportation challenges: creating a foundation for economic growth in a more complex global economy,

promoting energy independence and efficiency, addressing global climate change and environmental quality, and fostering livable communities connected by safe and efficient modes of travel.

The existing transportation system requires significant investment simply to rebuild and maintain the critical infrastructure we have today. Meeting our 21st century challenges will require new transportation solutions be considered as well. The Obama Administration believes that our transportation investment strategy must address these several key strategic goals: ensure safe and efficient transportation, build a foundation for economic competitiveness, promote energy efficiency, environmental quality and support interconnected livable communities. The Obama Administration believes that to help address the Nation's transportation challenges, we must invest in an efficient passenger rail network that connects communities across America.

Intercity passenger rail is well positioned to address many of the Nation's strategic transportation goals. Rail is a cost-effective means for meeting transportation needs in congested intercity corridors. In many cases, modest investment on existing rights-of-way can result in service with highly competitive trip times while also providing ancillary benefits to energy-efficient freight rail service, and passenger rail including high-speed rail has a strong track record of safety in the United States and overseas. America's transportation system is the lifeblood of its economy. Building a robust rail network can help serve the needs of national and regional commerce in a cost-effective, resource-efficient manner by offering travelers and freight convenient access to economic centers.

Moreover, investments in passenger rail including high-speed rail will not only generate highly skilled construction and operation jobs but can also provide a steady market for revitalized domestic industries producing such essential components as rail control systems, locomotives and passenger cars.

Rail is already among the cleanest and most efficient energy-efficient modes of transportation. Future intercity passenger rail networks including high-speed rail using new clean diesel electric power can further enhance rail's advantages. Rail transportation has generally been associated with smart growth because it can foster higher-density development than has been typically associated with highways and airports. Rail is uniquely capable of providing both high-speed intercity transportation and its own efficient local access.

A cornerstone of the Administration's rail strategy is developing a comprehensive high-speed rail passenger network. This will require long-term commitment at both the federal and State levels. As mentioned earlier, the President proposes to use the \$8 in the Recovery Act to jumpstart this program and then continue the program with \$1 billion a year for every year beyond 2009.

A major reshaping of the Nation's transportation system is not without significant challenges. After decades of relatively modest investment in passenger rail, the United States has a dwindling pool of expertise in the field and a lack of manufacturing capacity. Federal and State governments face a difficult fiscal environment in which to balance critical investment priorities, and many will have to ramp up their program management infrastructure. The

country's success in creating a sustainable transportation future, however, demands that we work to overcome these challenges through strong new partnerships among the States and the local governments, railroads, manufacturers and other stakeholders along with the federal commitment that we have talked about.

In the near term, our proposal lays the foundation for the network by investing in intercity rail infrastructure equipment and intermodal connections. Our strategy seeks to in the near term advance express high-speed rail, those systems operating in excess of 150 miles an hour in selected corridors, develop emerging and regional high-speed rail services, those that would operate at 90 to 110 miles an hour prospectively on a shared track and in some cases dedicated track, and upgrade the reliability and service on conventional intercity rail passenger services with speeds in the 79- to 90-mile-an-hour speed range. This near-term strategy emphasizes making investments that yield tangible results within the next few years while also creating a pipeline that enables ongoing corridor growth.

As President Obama outlined in his March 20th memorandum to all of us in the federal government, our process is going to be transparent, merit-based selection, use transparent selection criteria. We are going to measure public benefits and we are going to work to reduce risk.

As I see our time is passing, I just want to close by saying that these are exciting times for us. We have never seen at the Federal Railroad Administration the degree of commitment and engagement on the part of the President and the Vice President in railroad programs, but if our effort is going to be successful, we are going to need Congressional support as well in ensuring that we have the stable source of funding to advance the programs and the resources to implement that, and we look forward to working with the Committee to make improved intercity passenger rail and high-speed rail a reality.

With that, I will close. I will be happy to answer any questions you may have.

Mr. ALTMIRE. Thank you for your testimony. Thank you for taking the time to travel here to be with us today.

Mr. Fauver.

Mr. FAUVER. Good morning and thank you for having me here to provide testimony on high-speed and intercity rail development and specifically in Pennsylvania.

Imagine being able to take a train from Philadelphia to Pittsburgh and arrive in less time than it would take to drive. Right now it will take you 5 hours to make that drive. We are on the cusp of making choices that will advance our transportation system into the 21st century, and high-speed rail is one of the choices that we have before us.

As a planner, I know that we need to envision a future, then make decisions to implement plans. I believe that the choices we make today regarding high-speed rail will set the course for the future of our country. We have been doing that here in Pennsylvania and as a result we are seeing the benefits. We found that our investments in rail infrastructure improvements are improving serv-

ice. Our citizens are talking with their feet, boarding trains to and from places all along the Keystone Corridor.

When Governor Rendell came into office, he followed through and completed a commitment made in the prior administration to partner with Amtrak on \$145 million improvement to the 104-mile Keystone Corridor between Philadelphia and the state Capitol in Harrisburg. The improvements included 128 miles of continuous-welded rail, more than 200,000 concrete ties, 52 new switches and the first upgrade to the signal electrification system in over 70 years. The improvements were completed in 2006 and allow us to operate trains at a maximum speed of 110 miles per hour. That is the fastest in the United States outside the Northeast Corridor. The express travel time between Philadelphia and Harrisburg was cut to 90 minutes. That is a 30-minute improvement from what it was prior to the improvements, and that is far better than what it takes to travel by car, anywhere between 2 hours and 20 minutes and 3 hours, depending on traffic. If you ever traveled on the Schuylkill, you know what we are talking about. People using the Keystone Corridor avoid one of the most congested expressways, and most importantly, it is one of the most reliable corridors in the country with trains averaging almost 90 percent reliability over the past year, and it is cost competitive as well.

Riders responded to the improvements. Since the improvements, ridership on the Keystone Corridor has increased by 26 percent. The line will provide service to 1.2 million riders this year. These Keystone Corridor improvements represent a first step toward building a truly national intercity high-speed rail network. We have a lot more to do, though, in Pennsylvania. We are already using some of the stimulus dollars we received to improve the Elizabeth station along the Keystone Corridor and bring it up to make it ADA accessible. We are considering applying for discretionary stimulus money to make further track improvements that will allow top speeds of 125 miles per hour and further reduce travel time between Philly and Harrisburg.

So what makes intercity and high-speed rail successful? People want to use transportation systems that are frequent, reliable, cost affordable and that are time competitive. Beyond the Keystone Corridor and the Northeast Corridor, Pennsylvania does not currently have passenger rail services that meet those requirements. Going back to the dream, we know we need to make choices today to get there. We need to plan for possible improvements west of Harrisburg to Pittsburgh, a route served by just one train a day in each direction. Pennsylvania service that operates between Pittsburgh and Harrisburg needs substantial capital and operating funding investments to improve service. It takes over 5 hours to travel between Harrisburg and Pittsburgh by train. A person can make that in a personal automobile in 3-1/2 hours whenever they want to make the trip. Many of the train stations along the route are in a state of disrepair and do not meet the requirements of the Americans with Disabilities Act.

In 2005, PennDOT completed a study entitled The Keystone West Passenger Rail Study. This study was prepared by Norfolk Southern with support from the Woodside Consulting Group. The study identified the capital projects that will be necessary in the

Norfolk Southern right-of-way between Harrisburg and Pittsburgh to increase the level of passenger rail service to four round trips per day. At the time it was two round trips but subsequently we lost Three Rivers service. The costs for the projects that will be required to allow for this increase were estimated \$110.9 million, and that was in 2005. The study didn't deal with other cost elements, though, that need to be dealt with including capital costs for stations, additional train sets and the operating costs for the service. The projects identified in the Keystone West Passenger Rail Study alone were way too shortsighted. The United States must make substantial investments to have an interstate light rail system. We think that the investment that is needed in the Keystone West Corridor is billions, not in the hundreds of millions.

High-speed rail is not a waste of resources. In the right places such as along the Northeast Corridor, the Keystone Corridor and other high-density corridors around the Nation, an investigation in high-speed rail makes tremendous sense and can give the National real workable transportation options for the future. That is why President Obama's decision to commit \$8 billion in stimulus funds for high-speed rail and intercity rail improvements is a good move, a visionary move, and this investment will set the stage for ongoing rail improvements across the country.

High-speed and intercity rail programs are about connecting high-density city areas. Doing so will permit higher levels of sustainability. It is important to note that the federal dollars we are talking about for high-speed rail are for capital. The cost of building these systems without federal funding to operate the intercity rail expansions, States and cities are going to have to address how they are going to pay the costs of operating these systems. In Pennsylvania, we have made choices in this fiscal year and the previous fiscal years and committed operating funds for the current Keystone service between Harrisburg and Philadelphia. Intercity rail systems can't pay for themselves. Tough local and State decisions must also be made to support intercity and high-speed rail as a reality.

Mr. ALTMIRE. Thank you for your testimony.

From Amtrak, Mr. Lang.

Mr. LANG. Good morning and thank you very much for the opportunity to testify before this Committee today. My name is Ray Lang and I am the senior director for government affairs at Amtrak. I have been with Amtrak for 14 years and I manage out-reach and liaison programs for all of our State and local partners.

As you know, recent legislation such as the Passenger Rail Investment and Improvement Act, or PRIIA, and the American Recovery and Reinvestment Act, or ARRA, have established a number of very specific requirements for studies of potential service improvements as well as a grant program that is meant to fund partnerships between States and Amtrak for that same purpose.

Amtrak and Pennsylvania have a significant and enduring partnership that spans the entire 38-year history of the corporation. We operate approximately 120 daily trains to Pennsylvania. We employ 2,539 Pennsylvania residents, and the company spent \$110 million for goods and services in Pennsylvania last year. As Pennsylvania was the Keystone State of the colonies, it has now become a key-

stone of Amtrak's busy Northeast Corridor service. This partnership has provided other states a model for the translation of rail service from concept to reality. We have long enjoyed a strong partnership and I want to thank Secretary Biehler and Toby Fauver for the work that Pennsylvania has done in holding up its end of the partnership. Our partnership is a good foundation for future opportunities in Pennsylvania because PRIIA envisions a strategy built on partnerships, one where Amtrak and the States will work together to develop short-distance corridor services ranging from about 100 to 600 miles in length. One very successful partnership of that kind that the Act envisions took place right here in Pennsylvania, and that was the restoration of the electrified service on the Keystone Corridor between Philadelphia and Harrisburg.

Under the leadership of Governor Rendell and former Amtrak president David Gunn, the State partnered with Amtrak to invest \$145 million in that corridor. Each of us put in half of that total. We restored the electrification west of Paoli and improved the track for 110-mile-per-hour service. As a result, we were able to offer faster and more frequent service and the results have been exciting. Ridership grew by 20.1 percent in fiscal year 2007 and 19.8 percent in fiscal year 2008, a striking demonstration of the relevance of rail passenger service. Higher speeds and the elimination of the engine change at Philadelphia cut schedule times and made our trains competitive with airline service. The Keystone Corridor is a major triumph and it is a model that we would like to emulate and potentially to expand.

I believe this success has influenced the legislation, and section 224 of PRIIA mandates studies on the costs and benefits of service on six routes specified in the Act all over of the country. Two of those studies touch on existing routes here in western Pennsylvania and will be of interest in the context of today's hearing. One study will examine the Harrisburg-to-Pittsburgh route currently served by the daily Pennsylvanian. The statute requires a report to determine whether to increase frequency of passenger rail service along the route or other segments along the route. The other requires a study of the Capitol Limited route between Cumberland, Maryland, and Pittsburgh, to determine whether we should reinstate a station stop at Rockwood, Pennsylvania. These reports are due to the Committee on October 26, 2009. We have solicited proposals for the study and we expect to make the award around the 1st of July, and we are moving forward and expect to meet that deadline.

These are only two of the many activities that Amtrak will be undertaking this summer. We are currently going all out on some of our major development projects directed by both PRIIA and ARRA, so it might be useful if I summarize these developments. We are, for example, undertaking six PRIIA-mandated studies of routes and services, two of which I mentioned previously, and we have received requests for involvement with 283 other projects in 34 different States to be funded by ARRA. Those states will now be studying the recently released FRA guidelines that came out last week, and taking a hard look at what they really want to do.

Last year when President Bush signed PRIIA into law, it established a federal grant program for States that wished to develop

intercity passenger rail service. When Congress passed ARRA, that Act included \$8 billion in funding for the capital grant program authorized under PRIIA. This legislation is critical to shaping the continued development of intercity passenger rail service. For example, ARRA funds will be available for individual projects, generally small projects, that are expected to provide discrete levels of benefits on the existing route. They will also be available for corridor programs which will be larger bundles of projects that are expected to provide for improved passenger service over whole corridors. While PRIIA does provide access to capital funding, operating funds are the State's responsibility, so if, for example, the State wishes to pursue an expansion of Harrisburg-to-Pittsburgh service, state operating funding will be a pre-condition to receive federal funds.

Amtrak is very eager to support the ARRA applications. I would join with what Mr. Yachmetz and Mr. Fauver said before me, that we have a tremendous opportunity facing us right now. We cannot afford to fail. The President has shown great faith in passenger rail service and the continued development of intercity passenger rail service in the United States. Amtrak is very eager to develop intercity and high-speed rail service in all parts of America including right here in western Pennsylvania.

Thank you very much for the opportunity, and I will be happy to take questions at the end of the testimony.

Mr. ALTMIRE. Thank you.

Mr. Gleason.

Mr. GLEASON. Good morning, Congressmen Altmire, Shuster and Murphy and I certainly appreciate the opportunity to come before you today to discuss Keystone West, and obviously I appreciate your interest in this.

You know, one of the things that we have had a difficult time getting was a lot of interest in the Keystone West Corridor. The Keystone East Corridor, as everybody has described, has been very, very successful, but when we move west we haven't had a similar effort. I think it is important to understand the context of the proposed Keystone West, what I call a technology corridor, and the context is, as we struggle to reinvent our regional economy, having this type of infrastructure and this type of tool becomes very important to attract capital investment and investment into jobs.

The corridor from Pittsburgh to Altoona to State College to Harrisburg will never have a limited access four-lane interstate highway. Parts of that corridor are covered by interstate highway but parts aren't, and of course we have Interstate 80 north of the corridor and we have the turnpike south of the corridor, so it is kind of left there. So it kind of leaves the corridor, you know, in terms of the infrastructure necessary to promote economic development weak.

Now, you know, the dream of high-speed rail has been around for 30 years. I remember Senator John Heinz talking about it. Millions and millions of dollars have been spent promoting it and studying it and so on and so forth, and it is a wonderful dream, but it is not going to happen in the immediate future. It is going to happen, if it happens at all, way down the road, and what we need to do is try to take the infrastructure we have now and leverage that in-



frastructure and utilize it to make Keystone West Corridor a reality.

I think the partnership that was discussed here between the State and the federal government and Amtrak is a wonderful partnership, and as everybody has said, the Keystone East really kind of showcases the success of that. We need to take that same partnership and fund it properly and get that working on the Keystone West because the citizens west in this corridor really need that type of help.

One of the things they talked about is infrastructure improvements on the Norfolk Southern line and I think it is important to note that there has really been a precedent set when Governor Casey did a bond issue here in Pennsylvania, and I forget exactly how much it was—maybe you remember, I don't remember—\$60, \$70 million, to improve the right-of-way for Conrail at that time, and that worked very, very well for all the parties involved, Conrail at the time, the State and of course our economy, and that kept the main line flowing and it was very important in terms of our economic health.

So, you know, I think that the emerging technology corridor that you have is State College, of course, with Penn State University there, Pittsburgh, which is an established technology center. You have a growing line in the Cambria-Somerset area with a lot of defense industries and businesses in that area, and to connect all these together with the state capitol would generate a lot of economic synergism for the Commonwealth and for the citizens of the State.

So that is basically my context, and certainly I am willing to answer any questions you might have. Thank you.

Mr. ALTMIRE. Thank you.

Mr. Posner.

Mr. POSNER. Thank you. This is my first opportunity to address this Subcommittee, so I thought it would be interesting to just give you a little background on who I am since you don't know who I am.

I am a Pittsburgher. I'm an investor in railways in the United States, Latin America, Africa and Europe. I spent my life in the rail industry. I have been a member of the National Association of Railroad Passengers since I was 14 years old, and my railroad career has included time with Amtrak, the Rock Island Railroad, Conrail and the national railroad in Guatemala. I hold several jobs right now. I am chairman of the Iowa Interstate Railroad, which will serve as the Amtrak route to Iowa City under the Midwest Initiative. I am also chairman of the Steel City Flyer, which is the express bus to connect with Amtrak at Harrisburg, and I am also known as the guy who in 1990 tried and fail to save the Pittsburgh and Lake Erie, so I am somebody who has spent my life in the industry and I am somebody who has put my money where my mouth is. One other interesting that we are up to is that next year we are starting a high-speed rail intercity service in Europe. We have already bought the trains, and that might be interesting also for this Committee.

But what I wanted to do is just give you a very condensed version of what I think the most relevant parts of my written state-

ment are for this group, given the time constraints, and first of all, I think it's already been mentioned, you need to keep in mind that the route from Harrisburg to Pittsburgh is one of the densest freight railroad corridors in this country. It is a mountainous, heavy haul freight railroad. It is a high-density freight railroad as opposed to the high-speed passenger railroad east of Harrisburg, and I think the answer is some sort of public-private partnership with Norfolk Southern which would build on the foundation of the fact that our Nation's rail freight network is considered the world's best, and evidence of that is that we are involved in a joint venture in France to help them with their freight business so you have got Americans saying why can't we have trains like in France while the French are saying why can't we have trains like America.

The other thing to think as far as job creation; it is most important to focus on creating transportation as opposed to jobs. Western Pennsylvania is littered with infrastructure which has mismatched the market and that ranges from the U.S. Airways hub at the Pittsburgh Airport to the Wabash Tunnel.

And finally I think that we in Pennsylvania need to recognize that other regions are far ahead of us in this process. I have been reading in the press lately about how the two frontrunners for the high-speed rail money are California and the Midwest. I think that is because they have been working on this literally for years and they were prepared when the Obama opportunity came along. We need to catch up with that if we are going to get anything done.

And then finally, and this is something that I just thought about today so it is not in the prepared remarks, and that is, consider the link with transit. If you look at where around the world people actually use high-speed rail, it is in places like California and the Northeast where high-speed rail is integrated with the local transit systems. That is also why it works in Europe, Japan, et cetera. It is not likely that people are going to drive into downtown Pittsburgh and hop on a high-speed train to go east. Quite likely it is going to be arriving on some sort of a feeder transit system to begin the trip.

So those are my remarks, and I am hoping that that should stimulate some interesting questions and answers, so thank you for the opportunity to speak to you.

Mr. ALTMIRE. Thank you, Mr. Posner, and I would reassure you that we do know who you are and that is the reason that you are here, so thank you for your comments.

Mr. Joseph.

Mr. JOSEPH. Thank you. My name is Ken Joseph. I am a resident of Dormont. I have lived in the Pittsburgh area most of my life. I am here on behalf of the National Association of Railroad Passengers. Unlike Henry, I didn't join when I was 14 but I have been there for a little while.

Actually, it was interesting to hear the three of you speak because I think that each of you touched on—between the three of you, I think you touched on most of the points I have to make. I think that Congressman Murphy did a good job of putting the importance of transportation to this region in a historical perspective. Over the years this region has prospered in large part because of its close association with the efficient east-west land transportation

routes that have taken various forms over the years, and we are in danger of losing whatever competitive advantage we once had.

Congressman Murphy also mentioned how air travel options in Pittsburgh and the region generally are much less than they were several years ago, although I do have to make a slight correction to what you said. Five hundred dollars won't get you to Harrisburg anymore. There are no more direct flights to Harrisburg. There are very few cities you can get to from greater Pittsburgh on a direct flight.

Also, interestingly, and this was mentioned or sort of alluded to, we have lost rail transportation options on the past 10 years, one of the few parts of the country that has done that. In most other parts of the country, there are more passenger trains than there were, but in Pittsburgh, we used to have the two frequencies that were mentioned between Pittsburgh west to Philadelphia, but we also had a second Pittsburgh-Chicago train which allowed people in places like Altoona, Johnstown, Harrisburg, even Philadelphia to make a direct train trip west to Chicago. Now, even if you are in Philadelphia, you cannot take a direct train to Chicago. You have to change trains in Pittsburgh and that can involve anywhere from a 2-hour to an 8-hour wait in the train station. The 8-hour wait is on a Sunday morning, and if you are ever feeling bad about your lot in life or depressed for some other reason, go down to the station and take a look at the people there who are waiting for a train for 8 hours. It is certainly not an efficient or comfortable way to travel.

As also has been mentioned, other parts of the country are ahead of us, they really are, and even locally, and Ohio is much further along in creating a statewide high-speed rail network which hopefully we can connect with here in Pittsburgh if we get on the ball. As has been mentioned by many people, there is very attractive service from Harrisburg east to New York, and as a matter of fact, I know several people who when they want to go to New York they don't take the train because the departure time and the arrival time aren't good but they drive to Harrisburg or Lancaster, park the car and take the service from there.

The first step that I would like to recommend, a very small step, granted, in some perspectives but in other perspectives a very large step, to improving service here would be to restore the through train from Chicago to New York through Pittsburgh and the other western Pennsylvania cities and towns along the Norfolk Southern right-of-way. It is a shame that we lost that train. From what I understand about Amtrak's current rolling stock, it could probably be put back on very quickly if we were willing to forego diner car service and sleeping car service. That would be a small first step. That would double the frequencies between Pittsburgh and Harrisburg and points east and it would also allow everybody along the Pennsylvania line to take a direct train to and from Chicago.

Long term, I just have to endorse what other people have said the answer is, take more advantage of what used to be the four-track Pennsylvania railroad right-of-way. Except for a relatively small section here in Pittsburgh, there still is physically room for four tracks. It is a wide right-of-way. Most of it hasn't been lost. Freight railroads, unlike in the past, now seem to be willing to

work with government in order to allow passenger trains more access to their real estate, provided of course that they get benefits from that. I think that as a long-term solution to rail transportation in western Pennsylvania, we need to look at a greater utilization of that right-of-way and that can only be done with a significant capital investment.

Thanks again for the opportunity to make these remarks, and we appreciate the fact that you have come here to Pittsburgh and that Pittsburgh is at least on the radar screen as far as improvements to passenger rail transportation. Thanks again.

Mr. ALTMIRE. Thank you for your testimony, and thanks to all of you for your testimony. We will move into the Q&A part of the panel, and I want to start with Mr. Yachmetz. I am very interested in consideration of the Pittsburgh-to-Cleveland corridor as well, and we are here today to talk about the Pennsylvania corridor, and Mr. Shuster and I have had many conversations about Harrisburg and what we are talking about today, but when the President put out his high-speed rail corridor list, he had thankfully the Pittsburgh-to-Harrisburg route, which connects us to the eastern seaboard. He had Chicago to Cleveland, which certainly makes sense with offshoots into Indianapolis and Cincinnati and Columbus and other places. It seems to me the missing link there would be that the Cleveland-to-Pittsburgh route, which would then connect Chicago to the eastern seaboard, and from our perspective in western Pennsylvania, we feel like that would make us the hub of the Midwestern and Northeastern high-speed rail corridor in the entire United States and we feel like we are well positioned to do that. One of the things that I have done with the federal highway bill that we are in the process of discussing is insert language into there designating that Pittsburgh-to-Cleveland link as a high-speed rail corridor connecting it with the two that the President has outlined, and I just wanted to know what your thoughts were about that.

Mr. YACHMETZ. Mr. Chairman, the designated high-speed rail corridors are sort of a legacy of an older program and quite frankly need to be revisited, in my opinion, in the context of moving ahead with an aggressive high-speed rail program. They date back to the Intermodal Surface Transportation Efficiency Act, I believe, of 1991 and they were designed to address highway rail grade crossings on corridors likely to achieve speeds of 90 miles an hour. That is one of the reasons why you have this phenomenon that the Northeast Corridor is not a designated high-speed rail corridor, even though it is the only place that high-speed rail is actually present here in the United States.

The other point that I would make is that under the Recovery Act, the way the funding was made available to FRA, it uses three different statutory authorizations that come from the Passenger Rail Investment and Improvement Act, and two of those do not require presence on a designated high-speed rail corridor, so the connection you talked about, Pittsburgh to Cleveland, is something that would be eligible under the Recovery Act funds. It would require Ohio and Pennsylvania to get together and come up with a coordinated approach and application to dealing with it but it is eligible under current funding.

Mr. ALTMIRE. Thank you.

Mr. Fauver, in your testimony, you indicate that Pennsylvania needs to plan for possible improvements west of Harrisburg through Pittsburgh, and to date, what has PennDOT done to plan for such improvements and what else needs to be done? And I wonder if you could incorporate into your response a statement that Mr. Posner made in his testimony about freight rail and how the sharing arrangement is with that corridor as well.

Mr. FAUVER. Okay. Well, I think in my testimony I referenced a study from 2005 that we did. It was called the Keystone West study. It was in partnership with Norfolk Southern and our approach at that time and approach, you know, any approach to that corridor has to be in partnership with Norfolk Southern. They own the right-of-way, obviously would have to sign off on any investments being made. They are going to have to benefit from it. It is going to have to be a negotiated item. The Keystone West study identified \$110 million worth of improvements. Really, it was additional capacity at pinch points along the line to ensure that if several more trains were added to the service, that those trains could operate without interruption by freight. Since then we went through a funding crisis in transit. Part of that funding crisis dealt with operating funding for the Keystone corridor, the existing service between Harrisburg and Philadelphia, and since the passage of PRIIA we have begun a statewide rail plan. We are looking at the Harrisburg-to-Pittsburgh corridor in the statewide rail plan. We have had discussions with Ohio and have supported their efforts to get designated status to close that gap between Pittsburgh and Cleveland. The big challenge is going to be, where is the operating money going to come from and how is the operating arrangement going to be developed, and that is one that will have to be worked out in Harrisburg.

Mr. ALTMIRE. Thank you. I will turn it over to Congressman Shuster.

Mr. SHUSTER. Thank you very much, Mr. Chairman.

Mr. Yachmetz, I know recently that FRA just put out guidance on the stimulus money for high-speed rail and intercity passenger rail. The \$8 billion is in that program. I wondered, what is going to be the breakdown, do you think, between money going to traditional intercity versus high-speed passenger rail service?

Mr. YACHMETZ. Well, it is hard to say. We actually contemplated as we moved forward with our strategic plan and the guidance giving some ballpark allocations but in our discussions with Secretary LaHood, it became clear that he wants to see the applications come in and based upon the most meritorious applications allocate the funds, so there is no basis towards either high-speed rail or intercity passenger rail other than our efforts to make overall improvements in the passenger rail.

Mr. SHUSTER. So you are going to look at what is out there and what looks like it is ready to obviously go quickly but where we are going to have the greatest impact, so possibly Harrisburg to Pittsburgh or, as my colleagues mentioned, Cleveland to Pittsburgh if it makes sense and the engineering and those things are—

Mr. YACHMETZ. Yes, sir, they are eligible and we haven't made a decision between 200 miles an hour, 110 miles an hour.

Mr. SHUSTER. How soon do you think you will start—the decisions will be made?

Mr. YACHMETZ. The initial applications, we have—our first level of applications are due, right now we are targeting August 24 for individual projects and for planning grants, and October 2 for the overall corridor proposals. We would expect that we would approve some individual projects by the end of the summer, and we would make at least the first round of approvals of corridor development by the end of the calendar year.

Mr. SHUSTER. Thank you.

Mr. Gleason, I wanted to also point out that we didn't hear that you served on the Amtrak Reform Council, so you know a good bit about Amtrak and some of the ups and down of Amtrak, but I just wanted to get your thoughts on, we talked about economic development and I think a lot of us in this room believe if you build it, they will come, but what kind of response are you hearing and what type of economic development do you think are going to locate along the corridor or passenger rail improvements?

Mr. GLEASON. Well, first of all, I think there is some confusion when the term high-speed rail is used, and you know, when you use that term, some people think 150 miles an hour and then some people might think 79 miles an hour in a certain corridor. You know, it depends. And I think, you know, for example, the Norfolk Southern line right now I think has some excess capacity because of the economy. Also, the right-of-ways there, okay, a couple of lines have been ripped up in the past as many of you know. Maybe some day in the future we can lay another line on that right-of-way for additional capacity and work that out with Norfolk Southern. But so, you know, the economic development comes in the inter-relationship between the communities and you have somebody like State College being a technology center. You could have people live in Blair County. If we had normal DMU service, which is a self-propelled passenger car, it can hold up to 90 people, it can travel, you know, the corridor on reasonable speeds, and if you had that type of service, people could live in Blair County, go to work in State College every day or people could live in Westmoreland or Cambria County and go to Pittsburgh every day back and forth if you had that kind of DMU service back and forth between these hubs, and you know, I think what happens is that there is a doable way of getting this started, initiated in the short term by using the infrastructure that is there, the partnerships that are available, without spending a lot of money, and with Norfolk Southern obviously it is a willing partner, to initiate this service and begin it in the short term as opposed to long term is when you talk about high-speed rail. When you talk about 150 or 120 miles an hour and going down the Conemaugh Gap, I mean, that 79 or 110 miles an hour might be fine but going over the mountain to Altoona, 50 miles an hour might be fine. But still, people could get from point A to point B and the interaction between the communities would be terrific.

Mr. SHUSTER. Do you have any sense—I know the Keystone West passenger rail study didn't look at ridership. Do you have any idea on any study that has been out there on what kind of ridership do

you get? Currently I think from Altoona, Huntington, Johnstown west there is less than 60,000 people are traveling on that rail line.

Mr. GLEASON. Well, first of all, Amtrak did a study back in I think the late 1990s, thereabouts, and it was a preliminary study on ridership, and it shows that the ridership would have to be built over time, and we had St. Francis University, their graduate school of business also did a study and a survey that was very favorable. But as somebody mentioned before, if you have convenient, economical service that you can depend on and you can use on a day-in, day-out basis, I believe that people would come and utilize it, especially our senior citizens. Especially, you know, in the winter-time, senior citizens are closed off and there is no access or egress for them during the wintertime, and if you had an intermodal model combined with bus services to train stations, you could have people come from Altoona or Johnstown to Pittsburgh and take a bus to the medical center in Oakland or take a bus out to the airport to catch a flight. There are all kinds of possibilities by doing this intermodal with today's infrastructure. Nothing needs to be invented here.

Mr. SHUSTER. Thank you very much. My time is up.

Mr. ALTMIRE. Congressman Murphy.

Mr. MURPHY. Thank you, Mr. Chairman, and I want to thank all the panelists. It has been enlightening. I have a few questions here.

Mr. Fauver, a question for you. We have heard about the success of the Philadelphia-Harrisburg run. What do we need to do to set it up for success between Pittsburgh-Harrisburg, Cleveland-Pittsburgh? What would it take?

Mr. FAUVER. Well, first of all, I think we need to have a solid plan that is based on good engineering facts that we look at. The communities are there. You know, my opinion is that we need to have a way to serve State College. It is a major, major population center, major trip generator along that line. We need to have good, accessible stations that provide good entranceways into the system. If we just put additional trains out there on the line today, we are going to be plagued with delays, we are going to be serving stations that aren't accessible and we are going to have a pretty high cost to operate that service and probably not see the results that we are looking for. So I think we need to have a pretty significant investment in the line and it is going to have to start with a pretty solid engineering plan.

Mr. MURPHY. Does that mean we continue if we have that, we limit the number of stops along the way? I know some people refer to it as the milk train, you know, it is stopping at every town along the way. You can't have high-speed rail if you are stopping every few miles.

Mr. FAUVER. Let me talk about how works on the segment between Harrisburg and Philadelphia and maybe correlate there. We have four trains a day out of the 14 that are express trains that stop at five stations. Those trains are the ones that operate in 90 minutes. The rest of the trains stop at all the stations on the corridor and they operate at about an hour and 45 minutes so it is about a 15-minute longer trip on those trains. The key there when you are stopping at all the stations, and we currently don't have

the infrastructure in place to really make that as successful as it could be, is getting full-length platforms so people can board easily at all locations on the train. We currently don't have that. We are working on a plan to invest in stations. The Elizabeth station is one of the first that we are investing in to make that work.

Mr. MURPHY. What is the dollar cost of taking care of the stations, the lines, et cetera from Pittsburgh to Harrisburg? What is that total going to be?

Mr. FAUVER. I don't have a number for the whole line. I think it is more than hundreds of millions to actually get it up to a higher speed thing that is competitive with the automobile but I don't have a definitive number yet.

Mr. MURPHY. Where do we stand in comparing per-passenger per-mile costs, rail versus automobile, when you look at building highways, adding lanes, et cetera? Can rail be pretty competitive? I mean, because the federal government has to subsidize whatever it.

Mr. FAUVER. From a pure construction point of view, I think it is very competitive. The challenge with rail is building the ridership and growing the ridership to a point where it can offset the operating subsidy. We are currently subsidizing the Keystone Corridor this year at about \$8 million. But we have had successes. As we have made the major investments in that line, the subsidy per passenger has come down, the amount of money we are paying per passenger because we have had ridership growth and in turn revenue growth that has resulted from it.

Mr. MURPHY. Okay. Thank you.

Mr. Posner, you invest in these things. So from your standpoint as a person who looks at private investment, and I was reading up about this Posner principle, investing in underdog things, et cetera, along the way. So is this economically worthwhile? Is this something that involves federal, State and private investors to work on these rail lines, and from your standpoint, can it work?

Mr. POSNER. It really depends on the market. You go places like Japan and some markets in Europe, it can be profitable without subsidies where you have a combination of wealthy passengers, existing infrastructure and traffic density. For example, Japan is very wealthy, very dense.

Mr. MURPHY. How about here? Can it work here?

Mr. POSNER. Probably not.

Mr. MURPHY. Not to a profitable level?

Mr. POSNER. Probably not as a profitable business. There is a model of private sector operation of passenger service which is catching on around Europe where private companies compete for the opportunity to run passenger service for the lowest subsidy but I think that grafting that model into the United States may be very, very complicated, and I believe the sentiment of the freight rail industry, and I am not speaking for the freight rail industry but I can tell you my impression, is that there is a lot of concern about unknown third-party private operators coming into the business. I think they would much rather deal with Amtrak, quite frankly. I think the major concern is one of liability, and while the freight industry is very interested in promoting anything that benefits businesses in addition to freight, it should not compromise the



freight business and liability is a big concern. And if I could mention, the definition of high-speed rail, I think that once you start talking about speeds above 110 miles an hour, it is going to be pretty difficult to convince the freight industry that mixing passenger trains at that speed with freight trains is a good idea.

Mr. MURPHY. Well, certainly we recognize that government puts money into the air transportation from airports to air traffic controllers. They are doing the highways in terms of building the roads and the bridges and certainly in the rail system, especially as you see the freight system is doing so well now. I would think we want to know what the dollar value is and what the payoff is, and I want to thank all the panelists for your input on this today. I yield back.

Mr. ALTMIRE. I would open it up for a very quick second round beginning with Mr. Shuster.

Mr. SHUSTER. This is a follow-up for Mr. Posner on the economic viability. That is the debate that has been occurring in Congress over the last 30 years. Those in my party, some of them say, you know, shut down Amtrak, it can never work. Those in the other party, some say that you will have a profitable railroad, every passenger rail service in the world needs government support. I believe if we do it in the right way, not that we can have a profitable—hopefully we can have a profitable passenger rail system but at least we can have one that breaks even, and I think our problem in America is, if we focus on the corridors and not try to have at least today a national system, you know, not have the train running from Minneapolis to Seattle, which really is a tourist train, if we focus on really the high-density corridors in this country, we can get to a point where they can be self-sustaining and then expand on that to more of a national system if so be it. And I just wondered, you know, what are your thoughts of that as I look at two things? I look at the history. Up to 1950, there was a profitable passenger rail system in this country. It was the highways and air travel that caused us to get out of trains and into planes and cars, and second, with the expansion, the growth of the population in the United States, we are going to go in about 35 years from 300 million to 400 million people and those corridors that we talk about around the country, the nine or so corridors, the density is just going to increase significantly. Not everybody is moving from Pennsylvania to Arizona. So I wondered, what are your thoughts? Can we get there if we focus on those corridors?

Mr. POSNER. Yeah, I think that the word “focus” is exactly right. If you look at history, what happened was, after World War II, largely because of regulation, the first thing the railroads said was, if we could only get rid of the passenger trains, all of our problems would be solved, and that didn’t solve the problem. And then the railroads said if only we could get rid of branch lines, that would solve all of our problems, and that wasn’t solved. And so finally what they said was, well, if we can only get rid of regulation, that would solve all of our problems, and in fact, that did solve all of our problems. I am grossly oversimplifying, but just to keep the discussion going. Deregulation solved all of the problems which then allowed the industry to claw back and start saving the branch lines, and I think Pennsylvania has a very successful branch line

network, and freight rail is a network business just like passenger rail is, and so now the industry is to the point where we can have serious discussions about passenger service but I think that the answer would be simply because this country does not have experience in private sector passenger business anymore, we need to bring those models from overseas, which is one of the reasons why we are trying to do it elsewhere. But I think that if you looked at developing both corridors and preserving the national system, that would allow it to evolve as opposed to looking for some sort of a big bang to occur. And I also think that having several regional projects, because some are going to work, some aren't, will provide some breadth of experience in terms of getting back the experience that we got rid of in this country on how to own and operate passenger rail systems.

Mr. SHUSTER. In keeping with the Chairman's wishes, I yield back.

Mr. ALTMIRE. Thank you.

I just had one more for Mr. Lang. Has Amtrak engaged Norfolk Southern about increasing passenger service along the western portion of the Keystone Corridor, and if you have, what are the results of those conversations?

Mr. LANG. Not recently we haven't, and the study that we are going to do for you as part of what was authorized under PRIIA is more of a ridership and revenue analysis, but what would have to be done once you have that ridership and revenue analysis is to determine at that point what level of frequencies you want. In other words, say this corridor is right for six daily round trips or eight daily round trips. That is when you approach the railroad and model with them the service and look at what their infrastructure needs and requirements would be, look at their capacity, if you will, and figure out how to get six or eight frequencies into that corridor. Because we don't have a recent analysis of that. They are time-consuming studies to undertake. We do a very detailed analysis of that work in conjunction with them. Many of the engineers that we have are former freight rail employees that work very close with the freight rails. So, you know, we are able to do that and we have a number of those studies underway for other States and we would be happy at the appropriate time to work with Mr. Fauver to do that.

Mr. ALTMIRE. In closing, is there anything that you representing Amtrak would want to add to the discussion about sustainability of passenger rail and the long-term financial obligations?

Mr. LANG. Sure. That is the real question is, do you want to do this in such a way that you attract—you want to have a service that attracts riders or is your purpose to limit government subsidies for the service. That is the real question here. We have 14 States that contract with us to run service. In other words, they pay us to run trains that we would not otherwise be operating, and the State of California by far our largest partner. In 1992, they approached us and signed a contract with us to run passenger rail service between Oakland and Sacramento. They paid us to run two daily round trips in that corridor with a plan to develop that corridor to establish more frequencies. In 2006, 14 years later, they maxed out on the plan and with 16 daily round trips on the Oak-

land-to-Sacramento corridor, 32 train movements a day, and those are funded 100 percent by the state of California. Their goal in funding the operation of those trains was to get people off the roads. Their primary purpose for running that service was to get people off the roads and put them in transit. They made a decision that what they would use those trains for was to move people. It wasn't to limit operating support for those trains. It was designed to move people. Each State has a different reason for partnering with us. Most of them, though, it is they have made the decision that they want to have another form of transportation out there, and I think that that is really what you are talking about here today is how can we develop Cleveland to Pittsburgh and how can we develop Harrisburg to Pittsburgh. We will have—in October we will have ridership and revenue analyses to give to you on this and that would determine if we want to go forward with the capital plan.

Mr. ALTMIRE. Thank you all very much. We will now move on to panel number two. As the witnesses get settled, I will introduce the panel. I would like to welcome all of the members of the second panel. We have Dave Sieminski, associate vice president for finance and business of the Penn State University. We have Lorenzo Simonelli, president and CEO of GE Transportation. Next, we will hear from Patrick McMahon, president of Amalgamated Transit Union Local 85. We have Mr. David Wohlwill, manager of extended range planning for the Port Authority of Allegheny County. We have Mr. Robert Ardolino, CEO of Urban Innovations. And finally, we will hear from Dr. Fred Gurney, president and CEO of MAGLEV Inc.

Let me remind the witnesses that under our Committee rules, oral statements must be limited to 5 minutes but the entire statement will appear in the record. We are very pleased to have each of you, and I now recognize Mr. Sieminski for his testimony.

**TESTIMONY OF DANIEL W. SIEMINSKI, ASSOCIATE VICE PRESIDENT FOR FINANCE AND BUSINESS, THE PENNSYLVANIA STATE UNIVERSITY; LORENZO SIMONELLI, PRESIDENT AND CEO, GE TRANSPORTATION; PATRICK J. MCMAHON, PRESIDENT, AMALGAMATED TRANSIT UNION LOCAL 85; DAVID WOHLWILL, AICP, MANAGER OF EXTENDED RANGE PLANNING, PORT AUTHORITY OF ALLEGHENY COUNTY; ROBERT ARDOLINO, CEO, URBAN INNOVATIONS; AND FRED GURNEY, PH.D., PRESIDENT AND CEO, MAGLEV, INC.**

Mr. SIEMINSKI. Good morning, Chair Altmire, Ranking Member Shuster and Congressman Murphy. My name is Daniel Sieminski, and I am the associate vice president for finance and business at the Pennsylvania State University. I also have with me today Dr. Teresa Davis, who is Penn State's director of transportation services. It is an honor for me to be here to testify on behalf of the Pennsylvania State University in support of the expansion of passenger rail service in Pennsylvania, particularly to State College in Centre County.

The Pennsylvania State University is very encouraged about the prospect of high-speed rail service coming to the central part of the Commonwealth. We see many potential benefits of such a high-

speed rail system to include greater access and convenience to the region and an alternative economical means to move people quickly and efficiently. We believe it is strategically important to the Commonwealth as well as the Nation to include State College in the Pennsylvania rail network.

We also cannot discount the advantages of high-speed rail to our environment. One of the university's strategic goals is environmental stewardship. High-speed rail as a transportation alternative helps us recognize that goal.

When considering State College from afar, one might ask, what is so important about making State College part of the Pennsylvania high-speed rail network. We believe the following information provides the answer to that question.

There is no doubt that a traditional college education will continue to be of great importance to society and that excellence in research will continue to be highly valued well into the future. What is in doubt, however, is how effective we can be in providing a transportation system that serves the needs of a diverse group of individuals wishing to take advantage of the benefits that Penn State has to offer.

The notion of high-speed passenger rail to State College, Pennsylvania, is not a new one. The first paragraph of a 1985 report entitled Pennsylvania High-Speed Rail Feasibility Study states, "A high-speed rail passenger system across Pennsylvania could offer rapid all-weather travel between Philadelphia and Pittsburgh but also create tens of thousands of jobs, pump billions of dollars into the state economy and spark countless opportunities for real estate development." A follow-up report published almost 20 years ago in 1990 further emphasized the importance of high-speed rail between Pittsburgh and Philadelphia through Harrisburg. Both reports included trains being routed through State College, suggesting a connection through central Pennsylvania would be beneficial.

A report entitled Pennsylvania Statewide Passenger Rail Needs Assessment, which was prepared by the Pennsylvania State Transportation Advisory Committee in December 2001, referenced State College and three of its even regional meetings regarding passenger rail service.

Since 1985, State College has seen great improvements to Route 322 between Harrisburg and Potters Mills, extensive upgrades to Route 22 between Pittsburgh and State College, and the construction of Interstate 99 between the Pennsylvania Turnpike and Interstate 80. Each one of these improvements has improved access, convenience and contributed to safer travel.

The University Park Airport has enjoyed continuous investment in facilities and services. In the period from 1985 to 2007, University Park Airport experienced 208 percent increase in annual passenger enplanements. The Centre Area Transportation Authority provides the third largest bus service in the Commonwealth, moving over 6.8 million riders last year. Only Pittsburgh and Philadelphia have larger systems. We believe this ranking helps demonstrate the importance of public transportation to those living in State College.

The University continues to focus on providing transportation options. In 1999, the University changed the campus bus system to

encourage use of transit on campus and to discourage single-occupant vehicles. In partnership with CATA, the University implemented a ride share program and a discounted mass transit bus pass program. Additionally, we worked with CATA to enhance the regional van pool program. A web-based ride share program was added to help students share transportation to and from the university.

In response to requests by both employees and students, the University partnered with Fullington Bus Company to provide a weekend express bus service from New York City for students, employees and the community. This year, due to requests, we will be providing a trial program for a weekend express bus to Baltimore and Washington, D.C. The participation of our University community members in these transportation alternatives reflects the willingness of people to use alternative modes of transportation when available.

While State College continues to see improvements in the highway systems, airport capacity and bus service, the closest high-speed rail passenger service is in Harrisburg, which is more than 90 miles away. In many ways, that 90-mile separation creates a barrier for many people traveling to or from State College.

Throughout the Commonwealth, Penn State's enrollment totaled 92,613 during the fall 2008 semester, making Penn State one of the largest universities in the Nation. While not all of these students are enrolled at University Park, one must wonder what a University Park student would say if high-speed rail was one of the transportation options. If it is one of Penn State's 44,112 students at University Park, he or she might say high-speed rail is an affordable and efficient alternative to my travel between home and University Park for holidays and special weekends.

Penn State is also recognized as one of the major research universities in the Nation. In 2006, Penn State was ranked 13th nationally with research and development expenditures totaling \$664,182,000. Penn State's Conferences and Institutes brings nearly 50,000 people to our conferencing programs each year. Summer camps bring almost 220,000 youth from across the country to Penn State.

We have already heard the mention of Penn State football. The University's membership in the Big Ten further demonstrates the importance of high-speed rail service to State College as one looks beyond the borders of Pennsylvania at potential links to the high-speed rail service expansion in the Midwest.

The economic benefit of students, research and conferences and youth camps and Penn State football is summarized in a 2008 report. Let me read from the report—

Mr. ALTMIRE. If we could start to summarize, we can turn to some of this in the Q&A.

Mr. SIEMINSKI. Penn State contributes more to the State's economy annually than any other industry. In 2008, the University generated \$8.5 billion in direct and indirect economic impact and an additional \$8.7 billion through business services, research commercialization and the activities of alumni for a total of \$17 billion.

In closing, I would like to thank the Committee for allowing me to testify in support of bringing high-speed rail service to State Col-

lege. Borrowing a quote from the 1999 high-speed intercity rail passenger commission final report, "High-speed rail would be a catalyst for economic growth."

With that said, we believe including State College, Pennsylvania, as part of the high-speed passenger rail network is strategically important to the Commonwealth for the reasons I brought you today. Thank you.

Mr. ALTMIRE. Thank you. We appreciate Dr. Davis being here, and if you would like, I would invite you to sit behind Mr. Sieminski in the Q&A if you feel like you might want to have something to say. It is up to you.

Mr. Simonelli.

Mr. SIMONELLI. Mr. Chairman, honorable Members of the Committee, my name is Lorenzo Simonelli. I am the CEO of GE Transportation in Erie, Pennsylvania. Established more than 100 years ago, GE Transportation provides leading freight and passenger locomotives, signaling and communication systems, replacement parts and value-added services to our rail customers around the globe. Approximately 17,000 GE locomotives are currently in use in more than 50 countries.

The infusion of \$8 billion in funding for high-speed passenger rail in the stimulus legislation provides an opportunity for the United States to develop a leading position in passenger locomotive production. GE is prepared to build in northwestern Pennsylvania the next generation of high-speed diesel-electric passenger locomotives, which will support the high-speed rail initiative, create U.S. passenger rail manufacturing capacity and provide well-paying U.S. jobs.

GE Transportation is arguably best known for the development of its groundbreaking Evaluation Series locomotive. It is the most technically advanced, fuel-efficient and low-emission locomotive to date. The Evolution is 5 percent more fuel efficient and generates 40 percent lower emissions than previous locomotives. One locomotive saves approximately 300,000 gallons of fuel over the life of the locomotive. GE is prepared to transfer this state-of-the-art technology to the next generation of high-speed passenger locomotives which would deliver an estimated 25 percent of fuel savings and emission reduction by approximately 60 percent compared to the older locomotives currently in use.

Both the United States and GE currently face the most challenging economic environment in decades. However, times of crisis offer unique opportunities to innovate and upgrade. Now is the time to revitalize the passenger rail industry in our country by building the next-generation passenger locomotive here and replacing 20-year-old locomotives with state-of-the-art green rail transportation solutions.

GE has a long and successful past working with Amtrak. We designed and produced the Genesis passenger locomotive for Amtrak in 1997 with the most recent production run in 2001. GE is prepared to work with DOT, Amtrak and the States on the specifications for and production of these coming passenger locomotives.

Congress and the Administration need to ensure that there is a standardized approach to passenger locomotives that recreates a U.S. industry with significantly lower production costs than new

passenger locomotives. If we fail to adopt a standardized approach, the true benefits from jobs to efficiency will be far less significant. Using technology developed through the Evolution locomotive, GE will meet the DOT standards by building new passenger locomotives with a top speed between 110 miles per hour to 124 miles per hour.

As a measure of the environmental benefits of this new technology, replacing a fleet of 200 older locomotives would have a savings impact of 2 million gallons of fuel and an emission reduction of 21,000 tons of CO<sub>2</sub>, 1,560 tons of NO<sub>X</sub> and 200 tons of particulate matter. In addition, this upgrade would sustain approximately 1,900 jobs right here in America.

We encourage the federal government and Amtrak to continue to exercise leadership. In administering the \$8 billion high-speed rail program, the Department of Transportation must focus its efforts on developing domestic passenger rail manufacturing capacity. Similarly, today Amtrak is uniquely positioned to provide new leadership in passenger rail by upgrading and expanding its passenger locomotive fleet. GE demonstrated over the past decades that it possesses the know-how and manufacturing base in the United States to develop the next generation of fuel-efficient and low-emissions high-speed passenger locomotives. We are ready to partner with the federal government, the States and Amtrak to make higher and high-speed passenger rail a reality by providing locomotives made in the United States of America rather than importing technology and products from overseas. The modernization and greening of aging locomotive fleets in America could clearly have a profound impact on safeguarding well-paying manufacturing jobs in the United States and right here in Pennsylvania.

Thank you for the opportunity to speak before you. I would be happy to answer any questions you might have in this forum or at later date.

Mr. ALTMIRE. Thank you.

Mr. McMahan.

Mr. MCMAHON. Thank you, Congressman Altmire, Congressman Shuster and Congressman Murphy for the opportunity to testify here today. I am speaking here today on behalf of the Amalgamated Transit Union, the largest organization representing public transportation, paratransit, over-the-road and school bus workers in the United States and Canada. With more than 185,000 members in over 270 locals throughout the United States and Canada, we are definitely the largest transit union. My name is Patrick McMahan. I am the president and business agent of Local 85 here in Pittsburgh. I represent the 2,400 employees who operate the Port Authority of Allegheny County Transit System. I also under the ATU am the chairman of the Pennsylvania Joint Conference Board. In that capacity, I represent approximately 17 other cities throughout the Commonwealth including areas of Harrisburg, Altoona, Johnstown, Lancaster and several other of the smaller communities.

I am here today to talk about a subject which next to the extensive revision of our health care system is the most important subject that our Nation needs to address if we want to grow and prosper. There can be no mistake that the use of the American auto-

mobile adds to air pollution and saps our economy as a result of ever-increasing gas prices. While millions upon millions of cars creep along congested highways in order to get to their place of business and commerce, we must invest in a better way to enhance and improve our mobility.

Although the ATU is not opposed to the high-speed rail between major cities, we believe that the investment in public transit within the major metropolitan regions is a much wiser investment and expenditure of our federal dollars.

I am here today to talk and encourage a further investment into light rail in public transit. We believe that light rail will pay large dividends in our country and certainly to western Pennsylvania. The idea that public transportation can be self-sustaining has already proven to be irrational. Private transportation companies have fallen by the wayside simply because they cannot be economically operated on a for-profit basis. Public transportation systems are now an essential public service, the same as police and firemen. They must be funded by government. Fare increases and service cuts are not the answer and cannot solve the problem. People need transportation in order to get to their jobs, stimulate our market and invigorate our economy. In western Pennsylvania, the expansion of mass transportation, in particular, the light rail transportation system, is an absolute necessity. We cannot grow unless that occurs.

Today I advocate for light rail because our experience with heavy rail has proven to be a failure. The Port Authority once operated a heavy rail system and found it to be unreliable and inadequate. Because of the topography of western Pennsylvania and the locations of our densely populated areas, heavy rail is not suitable to service those areas. The heavy rail system is simply impractical for western Pennsylvania.

At one point streetcars were the engines which drove the region's economy. Those streetcars were thought to be outmoded, but we have come to learn that going back to the streetcar in the form of new, more efficient light rail vehicles is the answer. Unlike our forefathers, however, we must recognize that these light rail vehicles must operate on their own dedicated right-of-ways and be made accessible to the riding public where the demand is heaviest.

In the Pittsburgh area, we have several areas that absolutely would benefit from the expansion of light rail service: the Route 28 corridor, second would be the Oakland east end area, and the south side of Pittsburgh. We currently have a light rail system which services the South Hills and a new connector soon to be opened in order to service the North Shore where the Pittsburgh Pirates, the Steelers and our new casino is located.

In my more formal presentation, which I have provided a copy to you, I have outlined what I believe to be the best possible way to connect the entire light rail system. Essentially my idea is to integrate the existing system and extend it through the Oakland east end area, across the Allegheny River, along the 28 corridor. As an offshoot of the servicing the Oakland area, we should connect the south side of Pittsburgh into the existing South Side Rail Station.

The development of a light rail system to the areas mentioned will result in our entire region being tied together in one contin-



uous transit system that will allow someone from the furthest stretches of Allegheny County and even those in Armstrong, Butler and Westmoreland counties to board one of our light rail vehicles and travel into Oakland, South Side, the central city and or the North Shore without any interruptions and do so in a cost-efficient manner while contributing to a clean and green environment.

To accomplish this, we would obviously need the help of the federal government. We strongly believe that the federal surface transportation Reauthorization bill needs to not only increase funding for public transit capital projects but also to include funding for operating assistance.

The Amalgamated Transit Union and this local that I represent enthusiastically support the inclusion of House Resolution 2746 as part of the reauthorization package. This bill would provide for increased flexibility and the use of federal transit funds by allowing transit systems of all sizes to use a percentage of their formula funds for operations. Here in Allegheny County, a maximum of 30 percent of transit formula funds could be used for operating assistance. Significantly, the bill would encourage State and local governments to invest in transit through a unique incentive program.

Mr. ALTMIRE. If we could start to wrap up?

Mr. MCMAHON. Okay. So Congressman, again I thank you for the opportunity. In essence, we support the extension of the light rail in the major metropolitan areas as a better expenditure for our federal dollars and the rail systems. So with that, I will conclude and certainly I am available to answer any questions, and I thank you again for the opportunity.

Mr. ALTMIRE. Thank you.

Mr. Wohlwill.

Mr. WOHLWILL. Good morning, Chairman Altmire and Congressmen Murphy and Shuster, I am pleased to represent the Port Authority of Allegheny County and I thank you for the invitation, and my testimony is going to elaborate on points that Mr. Posner and Mr. Gleason made about integrating local transit systems within a regional or intercity rail system.

Port Authority is a multimodal transit provider. We serve 220,000 rides each weekday on our bus, light rail and inclined plane system. We have 188 routes. Port Authority is currently undertaking its transit development plan to determine how best to improve the efficiency and effectiveness of its transit system and improve service for existing riders and hopefully draw new riders within available financial resources. The Port Authority does not own or operate any intercity rail services nor do any of our facilities serve that kind of market. We are very interested in proposals for improved rail service in western Pennsylvania. And as these proposals are developed further, we urge consideration of how the intercity services would interface with local transit, and in particular I want to highlight Amtrak's existing Pittsburgh station. It is located adjacent to the Martin Luther King, Jr. East Busway. This is a 9.1-mile rapid transit facility linking downtown Pittsburgh and Oakland with Pittsburgh's eastern communities. About 25,000 riders use it each day. Thus, travelers from many of these communities have direct access to the Amtrak station and moreover a number of routes operating on other parts of our system also

use Penn Station as a layover point so their routes from the north and the west that come right to Penn Station so those communities also have direct access to the Amtrak station.

In recent years, Penn Station, which is the name of our busway station that is adjacent to the Amtrak station, has emerged as a regional transit hub, and each of the counties that surround Allegheny County have their own transit system and many of these operate services from those counties to downtown Pittsburgh, and these include Beaver County Transit Authority, Mid Mon Valley Transit Authority, Meyers Coach, Westmoreland County Transit Authority and Newcastle Area Transit Authority and the City of Washington's transit authority. Thus, direct service is available not only from Allegheny County to Penn Station and the Amtrak station but throughout the region, and this very high level of transit access makes it possible for passengers arriving on a train to access various parts of the region without going through the expense of a rental car, and then conversely it also makes it possible for the region's residents to access the Amtrak station without worrying about limited and expensive parking in the station area.

While these linkages to local and regional transit are important, I would also like to mention another benefit of the proximity of our transit system to the existing Amtrak station, and that is Port Authority's police is headquartered in what used to be call Pitt Tower. That is right near the Amtrak station, and in these days of security concerns, that adds an extra set of eyes and ears to the system, even though our police are focused on our transit system, you know, it is a further security enhancement.

And as a planner, I know you are a bit aways from thinking about fares, but as planning for a rail system advances into further phases, I would hope that would keep in mind fare instrument that would not only be good to pay for travel from, say, Harrisburg to Pittsburgh, but could also be used on the region's transit systems. That would certainly improve the integration and convenience of transferring from local to intercity transit and vice versa.

In conclusion, Port Authority is excited about the opportunities for further integration of local and regional transit into some kind of intercity or regional rail system in western Pennsylvania, and effective integration of local and intercity transportation will be mutually beneficial to the transit systems, to the operator of the rail system, whether it is Amtrak or someone else, as well as rail patrons. We look forward to working with Congressman Altmire and anyone else involved in planning and developing the intercity rail network, and I will be here to answer any questions. Thank you.

Mr. ALTMIRE. Thank you for your testimony.

Mr. Ardolino.

Mr. ARDOLINO. Good morning, Congressman Altmire, Congressman Shuster. My name is Robert Ardolino and I am the president and CEO of Urban Innovations and we are based here in Pittsburgh, Pennsylvania. Urban Innovations is a nationally recognized firm that specializes in transit-oriented development and public-private partnerships, known as P3s. Our firm currently has projects in California, Arizona and Pennsylvania. Today I would like to not only speak to the importance of expanded passenger rail in the United States and service in western Pennsylvania but to

point out that not only will enhanced rail service offer environmentally friendly options, aid in reducing traffic congestion, improve air quality and communities around such benefits, but it would carefully plan land use and economic development along rail corridors, both passenger and freight. Such developments are win-win situations for everyone.

For decades the automobile has been the force behind real estate development in America. As a result, open space and greenfields have been consumed by an overexpanding suburbia of large yards, wide roads and massive parking lots. During this same period, mass transit has been deemphasized, and unlike many parts of the world, passenger rail service has all but disappeared. Now our Nation and western Pennsylvania has been forced to reevaluate its development policies as a result of rising energy costs, deteriorating downtowns and overcrowded freeways.

Due to these troubling conditions, States are developing programs to rectify these programs. The Federal Railroad Administration in conjunction with the Federal Transit Administration has developed joint policy statements for the use of mainline railroad right-of-ways for light rail commuter train operations. Because of the oversight of light rail operations is designated to the FTA while intercity freight and passenger rail operations oversight is designed to the FRA, a joint agency accommodation is required.

Just as the freight railroad industry is rapidly growing, so are passenger operators. There are now 19 commuter railroad projects under FRA oversight ranging from large ones such as the Long Island Railroad, Metro North Regular rate and rhythm, New Jersey Transit, Southeastern Pennsylvania Transportation, and the Massachusetts Bay Transportation Authority, to name a few. However, southwestern Pennsylvania lacks strong commuter rail. Public authorities own all the commuter railroads. Some of these operate on their own tracks, provide operating rights to freight railroads and Amtrak. Others are tenants on tracks owned by freight railroads or Amtrak, and some have shared arrangements. Amtrak is a contract operator of services for several of the aforementioned commuter railroads while other commuter railroads contract with freight railroad operators or private companies.

The time has come in southwestern Pennsylvania to implement commuter rail. Urban Innovations along with key stakeholders have developed a plan to provide commuter rail service from Tarentum Bridge in Westmoreland County to the Convention Center in the downtown section of Pittsburgh known as the Strip with full cooperation of the owners of the freight corridor known as the Allegheny Valley Rail. Our project is supported by Congressman Altmire and many regional leaders throughout southwestern Pennsylvania including our Secretary of Transportation, Mr. Biehler. In the coming months, Urban Innovations will compile 8 years of studies and reports along with Allegheny County, Westmoreland County and the city of Pittsburgh to unveil an implementation plan that will consist of a public-private partnership which in conjunction with the Federal Railroad Administration and the Federal Transit Administration will develop a 22-mile commuter rail that will potentially connect to the formerly proposed light rail station at the Pittsburgh Convention Center with intermodal connections

to the bus terminal and the North Shore connector. This project will ultimately enable a rider to connect from the Tarentum Bridge in Westmoreland County to the South Hills Village Station in Allegheny County. The economic benefits and land-use opportunities that will surround this project are being developed. Urban Innovations has identified five key elements to assure the success of this project. They are marketing, financial, implementation, operations and maintenance.

We in Pennsylvania are in the national spotlight with the G-20 summit on the horizon. Pittsburgh has recently been recognized as one of the most livable cities in America. The time has come that we have a tremendous opportunity to enhance and revitalize our area through our rail system. This can only be accomplished through cooperation, dedication and persistence.

I would like to thank the Chairman and Congressman Shuster for giving me the opportunity to speak.

Mr. ALTMIRE. Thank you.

Dr. Gurney.

Mr. GURNEY. Good morning, Congressman Altmire, Ranking Member Shuster and others, ladies and gentlemen. I am very pleased to be able to address this Subcommittee on expanding passenger rail service. I am the president and CEO of MAGLEV Inc. and we are very vitally concerned about high-speed transportation, intercity transportation and the economic benefits that can accrue from transportation of this nature. We are also the private partner along with PennDOT on the Pennsylvania High-Speed Maglev Project.

First of all, we want to applaud the emphasis that passenger rail is now getting on putting together a real mechanism for passenger service throughout the country. We really believe that that is where we need to go and we totally support that. While we understand the necessity for the dedication of a significant amount of the stimulus funds to conventional dual-use rail mainly to remove those obstacles that are limiting passenger service, we very much believe that without a concentrated effort and grade separated track, we will be continually limited to the 79- to 110-mile-per-hour service. We have heard that testimony given here already today. We believe that America needs two or three truly high-speed transportation systems in order to capture the imagination and the support of the public on true high-speed transportation. In the case of high-speed maglev, we are talking about speeds slightly in excess of 300 miles per hour.

While I am a strong believer in high-speed maglev, I am equally a strong advocate of starting such a program right here in the Pittsburgh area. Pittsburgh is strategically located in the United States. It was already referred to as a natural hub of transportation between here and the Midwest, and I believe it is that exactly. Within 500 miles of where we are sitting now, we have one-half of the population of the United States. That 500-mile radius is what the FRA is referring to as the sweet spot for employing high-speed passenger service.

Not only is Pittsburgh strategically located, it also has the kinds of conditions that are challenging to high-speed rail and to all the intercity passenger rail. We have rugged terrain, a full four seasons

of climate and those kinds of things which beginning here will demonstrate the applicability of this kind of technology throughout the country.

Let me talk to you about some of the advantages of high-speed maglev. I already mentioned its high speed at cruising, slightly in excess of 300 miles per hour. It is energy efficient. It is green technology. There are no effluents from the vehicle itself. It offers substantial time savings and quality-of-life improvement for travelers. Very importantly, and this point came up several times today, very importantly, it offers the ability of self-sustaining service, and I will explain that a little bit more. With limited maintenance, the infrastructure should last as much as 80 years. High-speed maglev and particularly our design here in the Pittsburgh area shows that we can bring traffic into the heart of the city, into the heart of a compact city like Pittsburgh with very little disturbance on the existing buildings and infrastructure. Likewise with the service to the airport, with a station at the airport we can connect to the ticket counter with elevators or escalators, direct access to those locations. Even though we have lost some of the interconnecting links at the Pittsburgh International Airport, we still have an increase in the origin and destinations of that airport, so the business is picking up. Locally, the business is picking up in those areas.

Let me talk a little bit about the technology of high-speed maglev. I think some of you have heard me before, but let me at least reiterate some of these points. High-speed maglev as we anticipate it for the Pittsburgh and southwestern Pennsylvania area has been in development in operational verification in Germany for over 30 years. The German government has just recently incorporated and certified a TR-09 vehicle that includes the latest refinements of that technology. The system has been operating in Shanghai, China, since 2004 with a 99.8 percent up time. Ninety-nine point eight percent of the time it has been within 1 minute of its scheduled departure. It is a technology that listen to President Obama or Vice President Biden, this is the technology they are talking about. They talked about high-speed rail in China. This is the technology.

We have just recently completed the FEIS. It is at the FRA for finalization. We have begun some things with the development of the infrastructure, particularly with precision fabrication which is applicable to high-speed maglev but also applicable to the Nation's need for rejuvenation of the rail structure and also offshore structures and elevated highway structures. We have a tremendous amount of activity that we would like to continue to bring up. I think our Secretary of PennDOT, Al Biehler, has testified that for every \$1 billion of transportation funding, 30,000 jobs are created. Thirty thousand jobs are created for every \$1 billion. That is jobs of all kind, not just construction jobs and manufacturing jobs but jobs of all kinds.

Mr. ALTMIRE. If we could start to wrap up?

Mr. GURNEY. I thank you for the time that you have given me, and I again would like to say that we are very excited about the opportunity of being here and to tell you about this exciting transportation, and this is the one that President Obama and Vice Presi-

dent Biden are talking about when they talk about high-speed rail in reference to China. Thank you.

Mr. ALTMIRE. Thank you, and thank you all. We will start with questions.

I want to start with Mr. Gurney. We had last week someone involved in the transportation department made a statement alluding to the fact that it was her perception that the West Coast and the upper Midwest were far ahead of anywhere else in the country on high-speed technology, and we had someone on our panel, the first panel which I am sure you heard reference that comment. Can you talk about why you think that Pittsburgh and the maglev project was not considered when that statement was made?

Mr. GURNEY. Well, I think that most of those statements were made with regard to conventional steel wheel on rail transportation systems, and to upgrade the existing rail systems in the Midwest—and that activity has been going on for a long time as the testimony did allude. In the California area, a lot of activity has been going on and we have been following a little bit of that as well. So they are talking about conventional rail systems. There aren't a lot of places in the country that are talking about high-speed maglev and the benefits of high-speed maglev and so perhaps they just did not understand the technology.

Mr. ALTMIRE. Can you talk a little bit about when you say this is in your mind what the President is talking about when he talks about high-speed rail, what is the cost differential per mile for what you are talking about with your project and what other technologies might bring.

Mr. GURNEY. We are talking about a technology here that is 300 miles per hour. It is grade separated. It is on separate track and it is elevated. So whenever we talk about comparing, we need to compare equivalent grade separated track to maglev. When our comparisons and looking at the statistics particularly on light rail, they are very cost comparable. Looking at the light rail systems that were installed in Seattle and St. Louis and around the country, it is very comparable. We don't have good numbers with regard to what the upgrade of existing dual-use rail would be.

Mr. ALTMIRE. Mr. Simonelli, do you want to comment on that, your technology and what the cost per mile might be in implementing it?

Mr. SIMONELLI. If you look at the technology we offer today, which is diesel-electric, as you know, the freight railroad is one of the most productive in the world. I don't have the specific figures with me. Just one aspect to comment, there is a huge differential between what is mentioned as high-speed rail and full electrification, and the way we perceive it is, it is a gradual move towards electrification where small progress can be made immediately with huge benefits by moving towards a diesel-electric improvement, which is already available. Going down an aspect of full electrification is a 20- to 30-year journey. It is not something that can be reaped immediately.

Mr. ALTMIRE. Mr. Ardolino, can you talk about—you mentioned the Allegheny Valley Rail line, something that we have talked many times about. Can you talk about what the impediments are

to getting that up and running and what needs to happen between now and when that first passenger steps on that train?

Mr. ARDOLINO. Currently, the updated report is being completed by HDR Engineers and is due out at the end of this month. Once the information has been reviewed, looked at by Westmoreland County Transit Authority and our client, Allegheny Valley Rail, we have proposed a public-private partnership. The next step would be an environmental impact study that would be required for the corridor, and that could take approximately 6 to 8 months to complete, depending upon what kind of categorical exclusions we could get with FTA. We have been in discussions with Port Authority. They already have an environmental impact study in place for the connection to the former station that was proposed. Our projection from start to finish now would be 2-1/2 years.

Mr. ALTMIRE. So that would be 2-1/2 years from today—

Mr. ARDOLINO. Correct. The end of this month.

Mr. ALTMIRE. —that passenger train could be up and running.

Mr. Wohlwill, do you want to comment on that, the Allegheny Valley Rail line and what the Port Authority, what their involvement might be in that?

Mr. WOHLWILL. I have been a participant on a steering committee for the Westmoreland County Transit Authority study, and I would anticipate that as the study moves forward, we would continue to be a participant. Who would be the lead to advance the Allegheny Valley Commuter Railroad? I think that is something that is still to be worked out. There are several different models as far as implementation of commuter rail goes, so beyond my saying that we will cooperate, I don't have anything further to say on that.

Mr. ALTMIRE. Thank you. I will turn it over to Mr. Shuster, and we will do like we did last time, two rounds of questions.

Mr. SHUSTER. I want to conduct Mr. Gurney's follow-up from what you were saying before and expand upon that. I know in the next maybe 30 days they are going to award \$45 million to an East Coast and \$45 million to a West Coast high-speed maglev study or hopefully more than a study, and I just wanted to know, number one, how are you feeling about your chances, and number two, \$45 million, what can you accomplish with \$45 million towards making maglev a reality?

Mr. GURNEY. Well, first of all, let me take the question about how do we feel about our chances. I think they are fantastic and I think so because we are very definitely the leading high-speed maglev organization in the United States. We have done a tremendous amount of work in bringing this technology to the forefront, and we are continuing to work on it. Now, what we would do with \$45 million? The real approach that we would take is, we see the construction and the work towards deployment of high-speed maglev as being one that we would go into a design-build mode, and so what we need to do then is to do those kinds of things that promote and take it from the 10 to 15 percent engineering where we are now to the 30 percent or so engineering that is associated with design-build. That would include a major bridge crossing of the Mon River. It would include the design of the stations in the downtown area and also at the airport, and it would include all of

those things associated with bringing that together. So it is design-build activities in which we would be ready to go for construction, release contracts for construction whenever the construction funding would become available.

Mr. SHUSTER. So \$45 million would get you to a point where you could be ready to——

Mr. GURNEY. Forty-five million would get us well down that path to release the design—you know, from design to design-build contracts, yes.

Mr. SHUSTER. Thank you.

Mr. Sieminski, you talked about what rail connection would do to Penn State. Have you done any studies on how the students get to and from—I understand you said rail—or not rail, I am sorry, air travel has increased significantly but it would be my guess that most kids are coming by car. Is that accurate? Were there any studies done as to how many kids would get out of cars and onto trains?

Mr. SIEMINSKI. We have not done those types of studies but I would have to venture a guess easily 90 percent come by car. We have a number of out-of-state students. You would have to guess that they may fly in to a major airport, maybe bused. We have a significant number of international students that again would fly in to a major airport and look for transportation from wherever that airport might be.

Mr. SHUSTER. So there would obviously be a benefit to those students. It would seem to me because you have the 40 students there it would be relatively easy to do some kind of surveying of the students to get an idea, you know, how they are coming, how far they are driving, because I think a lot of that will determine—you know, if they are driving by car from Altoona to State College, they are not necessarily going to get on a train, but if they are going to Philadelphia and to Pittsburgh and various other places——

Mr. SIEMINSKI. The distance traveled, I think, is very important.

Mr. SHUSTER. Right. Is that something you would consider doing, that Penn State would put together a survey to try to give us something to put our teeth into?

Mr. SIEMINSKI. Certainly.

Mr. SHUSTER. And we talked mainly about high-speed rail. What would traditional rail service, would that still be beneficial and how would that be——

Mr. SIEMINSKI. There is currently——

Mr. SHUSTER. —affected——

Mr. SIEMINSKI. —rail service, very limited but rail service in Tyrone and Lewistown, and I am thinking Harrisburg to Pittsburgh, that route being developed is high speed would provide an opportunity in Lewistown. From Lewistown, it is a half-hour to State College, and with some minor improvements in the road, 322, that could be a big improvement for us.

Mr. SHUSTER. And Mr. Simonelli, a question on—if we were to put out some incentives to standardize approach to locomotive manufacturing, how would that benefit manufacturing in this country, having Amtrak step up to the plate and put out there some kind of standardization on what a locomotive would be? How is that going to affect General Electric?



Mr. SIMONELLI. Well, I think the biggest benefit is when you look at the costs of operations and being able to have a standardized approach across Amtrak and then the States as they look at replenishing from a locomotive perspective, costs of operations go down immensely. If you only have 20 units and then another 20 units that are different, having a large fleet of about 200 units the same, you can look at savings of about 60 percent from an operational perspective. From a GE perspective, it helps on the employment level and also from an aspect of northwest Pennsylvania.

Mr. SHUSTER. And if I could, I just have one follow-up and will forego the second round of questions. Mr. Simonelli, how in general can the Congress strengthen and expand U.S. rail manufacturing in this country? What are things that you have seen or ideas that you have that we should be looking at to help you build rail capacity?

Mr. SIMONELLI. I think again some of the initiatives that are being taken around the passenger rail and having a standard approach, also having Amtrak actually lead the initiative, putting through some legislation around the environmental requirements and also I think having a better appreciation for the differences between high-speed rail and where this country is today. There is a number of infrastructure limitations and it is a gradual approach, and immediate impacts can be seen by adopting diesel-electric locomotives which are available today and have already proved very beneficial for the freight locomotive carriers.

Mr. SHUSTER. Your new locomotive, how fast will that travel?

Mr. SIMONELLI. We can have a locomotive that goes between 110 to 124 hours per hour.

Mr. SHUSTER. That is for passenger or freight?

Mr. SIMONELLI. That would be for passenger, and if you look at the average freight locomotive, again the capacity is there to go to those speeds but they generally run between 50 to 80 miles per hour.

Mr. SHUSTER. Okay. Thank you very much.

Thank you, Mr. Chairman.

Mr. ALTMIRE. Mr. Sieminski, if we are able to accomplish in the future what we were talking about earlier, the Cleveland-to-Pittsburgh line, Pittsburgh all the way across the State through Harrisburg, what would you envision the route that would be necessary to get to State College? How would we get there?

Mr. SIEMINSKI. That is a great question. The studies that we have had done or that were done 20 years ago suggest Altoona, Tyrone, State College, over seven mountains into Lewistown. Another study showed further west to Williamsport. There are a number of routes that have been identified as potential—let me emphasize, it is not to displace the Philadelphia-Harrisburg-Pittsburgh connection. That is a primary route. Certainly Altoona, State College, Tyrone, Lewistown, Williamsport can play a significant role in adding to the passengers of a high-speed rail network.

Mr. ALTMIRE. I am just thinking of the geography, and if you are a student who lives in Baltimore, let us say, and you wanted to take the train, do you think that would be feasible? Go up through Philadelphia, turn left and then end up winding around a bunch of mountains to get up to State College?

Mr. SIEMINSKI. As far as Lewistown, it certainly could be very feasible. The next, I will say, 40 miles could be a big challenge.

Mr. ALTMIRE. Thank you.

Similarly on geography, Dr. Gurney, can you talk about the Pennsylvania corridor that we are talking about and the challenges that you would face in building a completely new infrastructure all the way across the State and what you have thought about with regard especially to the Altoona area and the more mountainous areas?

Mr. GURNEY. Certainly. I think one of the things that needs to be said here is that high-speed maglev has the great climbing capability of a 10 percent grade. Conventional steel wheel on rail is generally limited to the 3 percent grade. So we could go through some very rugged areas, and because high-speed maglev as we envision it is all elevated, then it is simply a matter of changing the heights of our columns so that we can keep it as nice and as smooth of a ride as possible. But again, being able to climb grades of 10 percent helps get around a lot of those difficult terrain areas, and we have a challenging terrain right here in the Pittsburgh area. So we have looked at that and we could navigate through that easily.

Mr. SHUSTER. Will the gentleman yield for a second? Somebody told me that technologically maglev, it can go straight up. Is that true or is that—

Mr. GURNEY. Well—

Mr. SHUSTER. I mean, it is not reasonable to do it that way but it has the potential to do that?

Mr. GURNEY. I don't know whether you can go straight up or not but you certainly can devise the system to go at very, very rapid speeds. At a matter of fact, it is used—the technology is used in Holliman Air Force Base on that sled that we are using for testing some launching of missiles. So it gets some very, very high speeds.

Mr. SHUSTER. So the technology could exceed 10 percent, 20 percent grades if you—

Mr. GURNEY. Yes, but we are really talking about passenger comfort here.

Mr. SHUSTER. Right. I understand. I just wanted clarification because somebody told me that it could exceed that, and I didn't know. Thank you.

Mr. ALTMIRE. Thank you, Dr. Gurney.

Mr. McMahon, you indicated in your testimony that a new light rail system must be strategically integrated—you said those words—within the current system. Can you elaborate on that, what you mean by that statement?

Mr. McMAHON. Yes. You know, we do have areas of southwestern Pennsylvania that definitely could use more transportation. I identified the 28 corridor. That is one that I know that people around here, it is definitely one of the worst commutes in southwestern Pennsylvania, but what I mean by that is, the existing—we have the North Shore, which, you know, whether you agree with the building in the North Shore or not, we have it and we should be looking to what we are going to do next. We could expand that. We could expand that North Shore out through the 28 corridor. We also have, which a lot of folks don't know because we don't use it that much, but right at the East Busway under this

very building we are in, we have the Spy Line that connects right to the East Busway. Now, if you would have had the planning to go from the East Busway and extend, you know, the rail system out the busway corridor, whether it is elevated or right beside it, however the most efficient way and the best way of doing it, but if you would go out through that corridor, you could connect to Oakland. There is already a busway ramp that goes right to the Oakland area, which would be beneficial. And then plus, you know, there are railroad bridges, things like that, that you could cross the Allegheny and then go down through all the Brownfields down here where those northeastern suburbs all come in through that get on to 28, the Millville, Sharpsburg, all those different areas down there that you could integrate with park and rides and things like that which we think would be very beneficial to southwestern Pennsylvania. You know, we heard a lot of things like the Allegheny Railroad, things like that, and they are all great ideas but like I said in my comments and more efficiently in the paper, we have experienced that and it really hasn't worked. The heavy rails haven't worked in western Pennsylvania. It is very inefficient. Port Authority had the Mon Valley, went up through all the way down to McKeesport. It just didn't work. It was very inefficient. They broke down a lot, things like that. We think that the topography and, you know, the areas that you would have to serve to make it efficient just isn't doable in our region because of the geography and things like that. I hope that helps. At least I hope that addresses what your question was. I don't know.

Mr. ALTMIRE. It does, and thank you all for your testimony today, and I especially in his absence want to thank Chairman Oberstar for allowing us to have this field hearing. There is a lot of staff work that goes into it. We have staff on both sides that are represented. Thanks to all of you for being here. This is an incredibly busy week for the Committee. As you saw, we unveiled the blueprint for the federal highway plan for the next 6 years, which we may bring to Committee as soon as this week, and I can't thank the Committee enough for their work. This is a very busy time and everything seemed to run smoothly. So thanks to each one of you, and I thank the witnesses for their testimony and the Members for their questions. Thanks to Congressman Murphy for joining us as well. And again, the Members of this Subcommittee and Congressman Murphy may have additional questions for the witnesses and we will ask them to submit them to you for you to respond in writing. The hearing record will be held open for 14 days for Members wishing to make additional statements or ask further questions.

Unless there is further business, this hearing is adjourned.

[Whereupon, at 12:20 p.m., the Subcommittee was adjourned.]

**STATEMENT**  
**of the**  
**Honorable Jason Altmire**  
**House Committee on Transportation and Infrastructure**  
**Subcommittee on Railways, Pipelines, and Hazardous Materials**  
  
**Hearing on the Expanding Passenger Rail Service**

I am pleased to call this hearing to order.

Thank you all for being here today. Today's hearing will examine the essential role that passenger rail plays in America's transportation infrastructure and the necessity for expanding its service and efficiency.

Our nation's transportation system is near capacity, with gridlock on our highways and in our airspace. In 2006, there were more than three trillion vehicle miles traveled, roughly double the nation's total mileage traveled in 1980, and more than four times the total mileage traveled in 1957 - the first year of the Interstate.

Our nation's airways fared no better. Despite record passenger

loadings, delays in the nation's aviation system delivered a staggering blow to the economy. In FY 2008, U.S. airlines continued to meet demand, carrying 757.4 million passengers, but the impact of unprecedented fuel prices and an overall recession have caused airlines to cut back capacity by reducing and eliminating routes, leaving consumers to vie for fewer travel options.

The U. S. Department of Transportation has described the current congestion on our highways and our air infrastructure as “chronic.” Moving passengers to railways can have an immediate impact on highways and airways- alleviating congestion, and reducing the consumption, consequences and our dependence on fossil fuels.

Since its origins in 1970, the National Railroad Passenger Corporation - also known as Amtrak - has been tasked with facilitating passenger services nationwide and rebuilding the rail passenger system into a modern, efficient conveyance. Today,

Amtrak operates a rail network across 46 states, serving more than 500 destinations on 21,000 miles of routes with its nearly 18,000 employees. In its sixth straight year of record ridership, Amtrak served around 78,000 passengers per day on its 300 trains, totaling more than 28.7 million passengers nationwide during fiscal year 2008. Given the ongoing concerns with congestion and our dependence on foreign oil, rising gas prices, and greenhouse gas emissions, both Amtrak and the States continue to look for opportunities to expand passenger rail service.

Adequate investment in passenger railroad infrastructure is crucial for national economic growth, global competitiveness, the environment, and quality of life. Continued efforts to expand passenger rail services are critical to maintain an effective, nationwide system, as well as to advance Congress' and the President's vision for the development of high-speed rail in the United States.

One 75-foot wide rail corridor can carry the same number of persons per hour as a 16-lane expressway, emitting fewer pollutants and consuming less energy per passenger mile. Capacity can be added to many existing corridors at a lower cost than comparable highway improvements using modern train sets or high-speed rail.

Rail travel is six times safer than highway travel and the safest mode of transportation worldwide. Increased travel by rail stimulates economic activity and spurs private investment in urban areas and central business districts around rail stations. Rail service grants the freedom of mobility to those unable to easily use our air and highway systems because of age, physical disabilities, health problems, or economic circumstances, and reduces our dependence on foreign oil.

Investment in the expansion of passenger rail service will also encourage economic growth through the creation of highly skilled, good paying jobs. Since the recession began in December 2007,

one of the hardest hit sectors has been in construction, which has seen unemployment rates over 21 percent. Since that time, over 1,050,000 jobs have been lost in the construction sector. Expanding passenger rail infrastructure will create jobs, not only in the construction sector of the economy, but in the manufacturing and service sectors as well.

In order to address our nation's economic, energy, environmental, and transportation challenges, we need to continue expanding passenger rail service and invest in high-speed rail. On February 17, 2009, the American Recovery and Reinvestment Act of 2009 was signed into law. The Recovery Act provides \$9.3 billion dedicated to passenger rail, including \$8 billion in grants to states for development of intercity passenger and high-speed rail and \$1.3 billion for capital improvements to Amtrak. Additionally, the President's budget proposes additional funding for each of the next five years for the advancement and development of high-speed rail throughout the nation.



Pennsylvania is currently served by five key Amtrak intercity rail corridors and routes. In 2008, three of Amtrak's busiest stations were in Pennsylvania: Philadelphia 30th Street Station was ranked the third busiest station, Harrisburg was ranked 21<sup>st</sup>, and Lancaster 22<sup>nd</sup>.

In the Passenger Rail Investment and Improvement Act, Amtrak was tasked to study the route between Harrisburg and Pittsburgh and the Capitol Limited route between Cumberland, Maryland, and Pittsburgh. I await the completion of those studies, which is set for October, but I know that Pittsburgh - like all major American cities - stands to benefit from increased passenger rail service. Examining that growth potential and eventually facilitating the service is a goal of mine and the other members of this Subcommittee. I look forward to hearing the testimonies from our esteemed and informed witnesses today, and I look forward to a brighter future for passenger rail in Pennsylvania and America.



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Committee on Transportation and Infrastructure's Subcommittee on  
Railroads, Pipelines, and Hazardous Materials on  
"Expanding Passenger Rail Service"

Monday, June 22, 2009  
10:00 a.m.  
Pittsburgh, Pennsylvania

Testimony By:  
Robert A. Ardolino  
Urban Innovations, Inc.  
1259 Washington Pike  
Collier, PA 15017  
412-400-9464

Good morning, Chairman Altmire and distinguished members of the Transportation and Infrastructure Committee. My name is Robert Ardolino. I am the President and CEO of Urban Innovations, based in Pittsburgh, Pennsylvania.

Urban Innovations is a nationally recognized firm that specializes in Transit-Oriented Development, also known as TOD, and Public-Private Partnerships, also known as P-3's. Our firm is currently working on rail projects in California, Arizona and Pennsylvania.

Today, I would like to not only speak of the importance of expanding passenger rail in the United States and service in western Pennsylvania, but to point out that not only will enhanced rail service offer an environmentally friendly option, aid in reducing traffic congestion and improve air quality, communities around such rail service benefit tremendously by carefully planned land-use and economic development along rail corridors - both passenger and freight. Such developments are "win-win" situations for everyone.

For decades, the automobile has been the force behind real estate development in America. As a result, open space and green fields have been consumed by an over expanding suburbia of large yards, wide roads and massive parking lots. During this same period, mass transit has been de-emphasized and, unlike many parts of the world, passenger rail service has all but disappeared.

Now our nation and Western Pennsylvania has been forced to re-evaluate its development policies as a result of rising energy costs, deteriorating downtowns and over crowded freeways.

Due to these troubling conditions, states are developing programs to rectify these problems. The Federal Railroad Administration, in conjunction with the Federal Transit Administration, has developed joint policy statements for the use of mainline railroad right-of-ways for light-rail commuter train operations.

Because the oversight of light-rail operations is designated to the Federal Transit Administration (FTA), while intercity freight and passenger rail operations oversight are designated to the Federal Railroad Administration (FRA), a joint agency accommodation is required.

Just as the freight railroad industry is rapidly growing, so are passenger operators. There are now 19 commuter railroads subject to FRA oversight, ranging from large ones, such as the Long Island Railroad, Metro-North Railroad, New Jersey Transit, Southeastern Pennsylvania Transportation Authority and Massachusetts Bay Transportation Authority - to name a few.

However, Southwestern Pennsylvania lacks strong commuter rail service. Public authorities own all of the commuter railroads. Some of these operate on their own tracks and provide operating rights to freight railroads and Amtrak; others are tenants on track owned by freight railroads or Amtrak; and some have shared arrangements. Amtrak is a contract operator of services for several of the aforementioned commuter railroads, while other commuter railroads contract with freight railroads or private companies to operate their services.

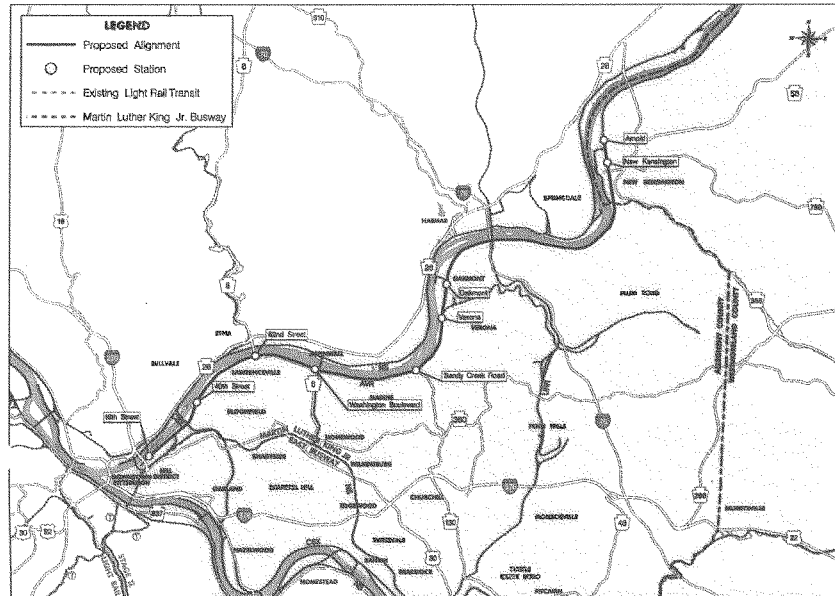
The time has come in Southwestern Pennsylvania to implement commuter rail. Urban Innovations, along with key stakeholders, have developed a plan to provide commuter rail service from the Tarentum Bridge in Westmoreland County to the Convention Center in the downtown section of Pittsburgh known as, 'The Strip District' with full cooperation of the owners of the freight corridor known as the Allegheny Valley Railroad (AVRR).

Our project is supported by our Congressman, Jason Altmire and many regional leaders throughout Southwestern Pennsylvania, including our Secretary of Transportation, Mr. Alan Biehler.

In the coming months, Urban Innovations will compile eight years of studies and reports along with Allegheny County, Westmoreland County and the City of Pittsburgh, to unveil an implementation plan that will consist of a Public-Private Partnership which, in conjunction with the Federal Railroad Administration (FRA) and the Federal Transportation Administration (FTA), will allow for the development of a twenty-two mile commuter rail that will potentially connect to a formerly proposed Light Rail Transit Station at Pittsburgh's Convention Center, with intermodal connections to the bus terminal and the North Shore Connector.

This project ultimately will enable the rider to connect from the Tarentum Bridge in Westmoreland County to the South Hills Village Station in Allegheny County. (Please refer to [Figure 1.1.](#))

Figure 1.1



The economic benefits and land use opportunities that will surround this project are being developed. Urban Innovations has identified five key elements to assure the success of this project. They are:

1. Marketing
2. Financial
3. Implementation
4. Operations
5. Maintenance

We in Pennsylvania are in the national spotlight with the G-20 Summit on the horizon and Pittsburgh recently being recognized as the most livable city in America. The time has come and we have a tremendous opportunity to enhance and revitalize our area through our rail systems. This can only be accomplished through cooperation, dedication, and persistence...and we will truly live up to our name - "City of Champions".

I would like to thank the Committee for giving me this opportunity to speak today.

**Expanding Passenger Rail Service Testimony**

**June 22, 2009**

**Pittsburgh, PA**

Prepared for:  
U.S. House of Representatives  
Committee on Transportation and Infrastructure's Subcommittee on Railroads, Pipelines and Hazardous Materials

Prepared by :  
Toby L Fauver, AICP  
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400 North Street—8th Floor  
Harrisburg, PA 17120

**Imagine**

In the right circumstances, high speed rail attracts riders and offers the nation a viable transportation option as we face the challenges of dealing with climate change and looking for alternatives to imported oil.

In Pennsylvania, Governor Rendell followed through and completed a commitment to partner with Amtrak on a \$145 million improvement to the 104-mile Keystone Corridor between Philadelphia and the state Capital, Harrisburg.

The improvements included 128-miles of continuous-welded rail, more than 200,000 concrete ties, 52 new switches and the first upgrade to the signal and electrification system in 70 years.

The improvements were completed in 2006 and allow us to operate trains at a maximum speed of 110 mph – the fastest in the U-S outside the Northeast Corridor.

The express travel time between Philadelphia and Harrisburg was cut to 90 minutes – a 30 minute improvement. That is a far better travel time than what it takes via car – anywhere between 2 hours and 20 minutes to three hours depending on traffic. People using the Keystone Corridor avoid one of our most congested expressways – Interstate 76, the Schuylkill Expressway into Philadelphia.

Riders responded to these improvements. Since the improvements, ridership on the Keystone Corridor has improved by 26 percent. The line will provide service to 1.2 million riders this year.

These Keystone Corridor improvements represent a first step toward building a truly national intercity high speed rail network. We have more to do in Pennsylvania. We are using some of the stimulus dollars to improve stations along the Keystone Corridor.

We are looking at applying for some of the stimulus money to make further track improvements that will allow top speeds of 125 mph and further reductions in travel time between Philadelphia and Harrisburg. We need to plan for possible improvements west of Harrisburg to Pittsburgh – a route served by just one train a day in each direction.

The Pennsylvanian Service that operates between Pittsburgh and Harrisburg cannot meet those requirements without substantial capital and operating funding investments. It takes over 5 hours to travel between Harrisburg and Pittsburgh by train and there is only one train in operating in each direction per day. A person can make the same trip by personal automobile in 3 ½ hours whenever they want to make the trip. Many of the train stations are in a state of disrepair and do not meet the requirements of the Americans with Disabilities Act.

In 2005, PennDOT completed a study entitled the Keystone West Passenger Rail Study. This study was prepared by Norfolk Southern with support from the Woodside Consulting Group. The study identified the capital projects that would be necessary on the Norfolk Southern right of way between Harrisburg and Pittsburgh to increase the level of passenger rail service to 4 round trips per day. At the time there were 2 round trips being operated by Amtrak. The cost for the projects that would be required to allow for this increase was \$110.9 million in 2005 dollars for line improvements. The study did not estimate or deal with other elements including:

- Riderhip estimates
- Other capital costs including stations and train sets
- Operating costs for the service.

Critics say Intercity and high speed rail is too expensive and a waste of resources.

They couldn't be more wrong.

Again, in the right places, such as along the Northeast Corridor, the Keystone Corridor and other high density corridors around the nation, an investment in high-speed rail makes tremendous sense and can give the nation real, workable transportation options for the future.

That's why President Obama's decision to commit \$8 billion in stimulus funds for high speed rail and intercity rail improvements is a good move. This investment will set the stage for ongoing rail improvements across the country.



But moving in this direction reinforces a point that Governor Rendell has been making all across the nation in his roles as chairman of the National Governor's Association and co-founder of the Rebuilding America Coalition.

The United States needs to address unmet transportation needs. Both transportation funding and program structure need a good going over in Washington. The United States has fallen far behind many other developed nations in terms of infrastructure investments – and passenger rail is a glaring example. Other nations dwarf our rail investment. Germany's federal government gives its states nearly \$9 billion a year for rail projects. France spends 20 times more per capita on rail than the U.S.

High speed and intercity rail programs are about connecting high density city areas and doing so will promote higher levels of sustainability. In Pennsylvania, our population over the last decade or so has grown by less than 1 percent but our increase in developed land exceeds 50 percent. We simply must take a different course.

Under President Obama's leadership, the federal government is reversing a long-standing attitude against passenger rail investment. So it will be important that the process of distributing this money be as transparent as possible. We need to ensure we are setting the stage for a rationale, effective system that will be in place for the long haul.

It is important to note that the federal dollars we are talking about for high speed rail are for capital – the cost of building these systems. States and cities are going to have to address how they are willing to pay the cost of operating these systems. In Pennsylvania, we have made those choices and in this fiscal year, committed \$8 million to pay for operating costs on the Keystone Corridor. These systems can't pay for themselves. Some tough local and state decisions must be made to make an intercity/high speed rail a reality.

What makes intercity/high speed rail successful? People want to use transportation systems that are frequent, reliable, cost affordable, and that are time competitive. Beyond the Keystone Corridor and Northeast Corridor, Pennsylvania does not currently have passenger rail services that meet those requirements.

**TESTIMONY FOR CHRISTOPHER GLEASON**

Establishing the Keystone West Passenger Rail Corridor would link two established technology centers, Pittsburgh & State College with our state capitol Harrisburg. With few changes to the present rail infrastructure & combined with the Keystone East passenger rail corridor, Keystone West would provide our commonwealth's citizens with a modern, convenient, dependable, safe & economical statewide transportation option that would link communities commercially, culturally, educationally, medically & economically.

I used the proposal assembled for the Keystone West Association in 2006 as a base, assuming this time that the project would be accomplished by Amtrak working in cooperation with Norfolk Southern, PennDOT and local transit authorities.

- The focus continues to be to provide an all-weather route linking Western Pennsylvania communities, this time extended to include Tyrone and State College.
- The proposed route is illustrated in the attached summary sheet. It runs from Pittsburgh to Tyrone over NS as does Amtrak at present. It then proceeds another 14 miles over the Nittany & Bald Eagle Railroad to Port Matilda, where the railroad crosses PA Route 322 and the closest point of approach to State College. Port Matilda is 10 miles from Penn State as the crow flies and about 12 miles over the road via the newly constructed PA 322/I-99 extension.
- The proposal would fully execute three of the four improvements defined in the 2005 PennDOT-NS Keystone West report (the fourth is east of Tyrone and is only relevant to Tyrone-Harrisburg trains). NS' consultant indicated that these improvements would allow Amtrak service to increase to four round-trips to and from Pittsburgh. NS' concern over having these improvements complete in advance of passenger service was the crux of the failure of the 2006 Keystone West initiative.
- These improvements alone would be about \$100 million and improve NS freight operations to the Port of Philadelphia as well as benefit passenger service. Adding other track and station improvements plus rolling stock (four new self-propelled rail cars and two over-the-road Greyhound-style coaches for the bus link) would bring total capital costs to nearly \$200 million.
- The proposed service (also on the summary sheet) would provide four trains a day between Pittsburgh and Port Matilda, in keeping with the 2005 report. In addition, State College connections would be provided for passengers to and from the east (Harrisburg, Philadelphia and NYC) on Amtrak Trains #42 and #43.
- Amtrak would operate the trains and Centre Area Transit Authority would operate the bus link. High quality buses with baggage handling capability would meet all trains and haul riders up the hill to PSU.
- An all-rail route to State College would add another 27 miles over a circuitous path via Bellefonte, the last 10 mile of which being particularly arduous. It would require extensive and expensive upgrades of track and my best estimate is that would add over an hour to the journey. Better (but no cheaper) to define an all-rail routing via a new direct alignment into State College as a "later phase" of the project.

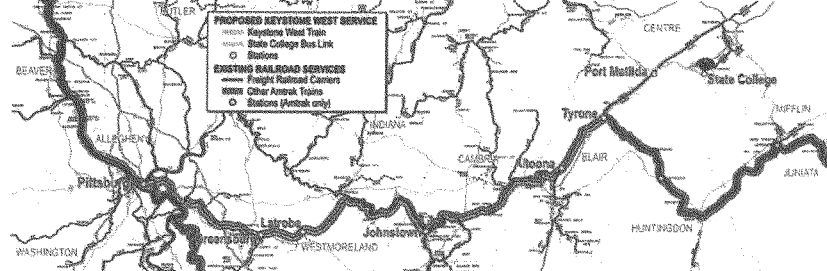
The proposed service east would provide four trains a day between Harrisburg, Huntingdon, Lewistown & Port Matilda/State College.

Transit Authorities along the system would be willing partners by providing scheduled bus service to fit the trains schedule. They would also offer online seamless ticketing to our citizens.

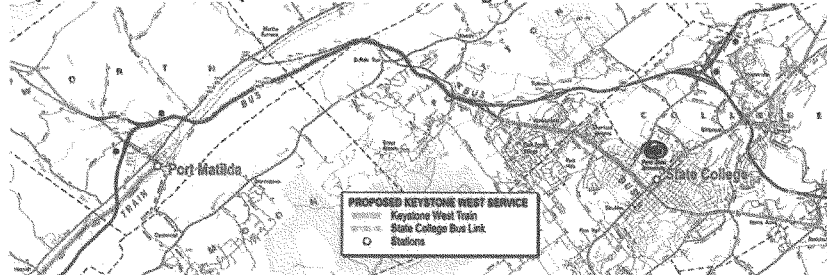
We're confident that increased service and ridership would lead to the economic development around renovated community train stations.

Keystone West & Keystone East would be combined into the KEYSTONE statewide passenger rail system that would link with Amtrak's NE Corridor system in Philadelphia giving all our citizens access to service Boston, NYC, Wilmington, Baltimore and Washington, DC. This would give Pennsylvania one of the finest passenger rail systems in the nation. In addition, providing increased egress & access to our communities would assist us in reinventing & growing Pa's 21<sup>st</sup> century economy.

**Keystone West Route (Pittsburgh to State College via Port Matilda)**



**Keystone West Bus Link (Port Matilda to State College)**



**Keystone West Bus Link (Port Matilda to State College)**

PROPOSED KEYSTONE WEST SERVICE										
EAST					WEST					
State College	8:33 AM	10:37 AM	3:33 PM	5:40 PM	8:03 PM	4:33 AM	6:53 AM	12:53 PM	3:46 PM	Amtrak 20
Port Matilda	8:38 AM	10:33 AM	3:38 PM	5:45 PM	8:08 PM	4:38 AM	6:58 AM	1:17 PM	4:18 PM	
Tyrone	8:43 AM	10:38 AM	3:43 PM	5:51 PM	8:13 PM	4:43 AM	7:03 AM	1:27 PM	4:28 PM	
Altoona	8:48 AM	10:43 AM	3:48 PM	5:56 PM	8:18 PM	4:48 AM	7:08 AM	1:37 PM	4:38 PM	
Johnstown	8:54 AM	1:14 AM	3:54 PM	6:02 PM	8:24 PM	4:54 AM	7:14 AM	1:47 PM	4:48 PM	
Lehigh Valley	9:01 AM	1:21 AM	4:01 PM	6:09 PM	8:31 PM	5:01 AM	7:21 AM	1:57 PM	4:58 PM	
Greensburg	9:07 AM	1:27 AM	4:07 PM	6:15 PM	8:37 PM	5:07 AM	7:27 AM	2:07 PM	5:08 PM	
Pittsburgh	9:13 AM	1:33 AM	4:13 PM	6:21 PM	8:43 PM	5:13 AM	7:33 AM	2:17 PM	5:18 PM	
	Read Up	Read Up	Read Up	Read Up	Read Up	Read Down	Read Down	Read Down	Read Down	

## Testimony of F. J. Gurney

President and CEO of MAGLEV, Inc.

June 22, 2009

Congressman Altmire, Ranking Member Shuster, Committee members and ladies and gentleman, I am delighted to have the opportunity to testify this morning before this Sub-committee hearing on Expanding Passenger Rail Service. I particularly want to focus on high-speed maglev technology and initiating true high-speed intercity passenger rail service and its potential economic impact. I am the President and CEO of MAGLEV, Inc., a company that is vitally concerned with the future developments in both transportation and job creation and is the private partner, with PENNDOT, in the Pennsylvania High-Speed Maglev Project.

High-speed maglev offers an unprecedented opportunity to establish long-term, high-speed intercity rail service and it can do so without the need for an annual operating subsidy. Pittsburgh, at the core of this ultimate multi-state, intercity operation, is located within a five hundred mile radius of one-half the population of the United States, or directly in the heart of the five-hundred mile range, referred to by FRA as the "sweet spot" or optimum range for applying the technology.

It is truly high-speed, cruising at speeds up to 310 mph; it is green technology; it is energy efficient transportation; it offers substantial timesavings and quality of life enhancements to travelers and it is self-sustainable once built. With a minimal amount of required maintenance, it has a projected 80-year life cycle.

The Pennsylvania High-Speed Maglev Project utilizes a fully developed, high-

speed train system that has been developed and continually improved by Transrapid International for over thirty years at its facilities in Germany. It has been operational in Shanghai, China since April 2004 where its on-time performance is 99.8% within one minute of schedule. It is the high-speed system most frequently referred to by President Obama and Vice President Biden.

The proposed 54-mile long project will provide extremely reliable service while reducing travel times by as much as thirty minutes per segment between stations during rush hours and other congested periods and in all weather conditions. It will reduce highway congestion and the related emission of NOX fumes in an area identified by the EPA as having a high level of particulates.

The Pennsylvania Project will demonstrate the technology's capabilities and adaptability throughout the entire United States based on the region's rugged terrain, 100+ degree temperature variation across the seasons and its ability to enter easily into a compact and densely populated urban area.

It will provide immediate and direct access to the airport ticket counter area via escalators and elevators. It will provide full, direct intermodal access between buses, auto, and light rail systems and enter the heart of a major city with an unprecedented low-impact on existing structures (less than four per mile).

High-speed maglev requires a grade-separated guideway. In Pittsburgh, it will be entirely elevated except at the stations. Capital costs of high-speed maglev are competitive to those of grade separated steel-wheel-on rail systems and to four-lane super-highways. However, because maglev transportation has no moving parts and is elevated above the guideway during operation, it has almost no wear and virtually no

need for alignment maintenance. This allows it to operate nearly twenty-four hours per day and lowers its operation and maintenance costs to approximately one-half those of a steel-wheel system.

MAGLEV, Inc. is pleased to report that the project's Final Environmental Impact Statement is ready to be published in the Federal Register. The Pennsylvania Project is the only high-speed maglev project to have completed its environmental impact statement.

In May 2009, Transrapid International, the developer of the technology, completed certification of the ninth version (TR-09) of this advanced vehicle design that incorporates the most recent refinements in the system technology. MAGLEV, Inc. has maintained a very close working relationship with Transrapid International and is currently in the process of implementing a technology transfer agreement to assure that the entire vehicle and system controls are manufactured in the United States, as well as the guideway.

MAGLEV, Inc.'s many years of working with the Transrapid International system has enabled it to develop a detailed cost analysis, which has been verified by independent cost studies.

### **Sustainability**

Under TEA-21 and SAFETEA-LU, the federal High-Speed Maglev Deployment Program required all maglev projects to be financially self-sustaining following construction. As opposed to steel-wheel-on-rail systems, high-speed maglev requires no routine or recurring track adjustment (nor would it be operationally acceptable) to

maintain high-speed maglev service. Steel-wheel-on-rail operations require intensive track maintenance to sustain proper gauge, elevation, cross level and other track standards that become more stringent with increased operating speeds. Maintaining these stringent standards is further compromised when the track is shared with heavy freight operations, a phenomenon that applies strong geometric forces to the rails and causes a shift in their alignment, necessitating constant correction. The absence of a similar maintenance requirement for high-speed maglev is based on the fact that there is no unintended shift or movement in the guideway. The end result is that no annual operations and/or maintenance subsidy would be required to support the operation of the high-speed maglev system. This is unprecedented for any transportation system worldwide. The fact that high-speed maglev has no moving parts and does not touch the guideway during operation results in very low O&M costs and enables the project to be self-sustaining.

The following projected revenue and cost information contained herein is from the project's completed Draft Environmental Impact Statement (DEIS) as required under the National Environmental Policy Act (NEPA). Capital cost estimates for the Environmentally Preferred Build Alternative were prepared by MAGLEV, Inc., and are based on engineering plans, profiles and other engineering details and the use of the ***PENNDOT Bulletin 50-Construction Cost Catalog*** and other information for unit construction cost estimates. Cost information supplied by Transrapid International (developers of the maglev system) was also used in the development of the maglev system cost elements and operating and maintenance (O&M) costs.



Since no high-speed maglev project has been implemented in the U.S., a consulting group retained by the public sponsors conducted an independent cost/risk assessment study in 2003. Based on MAGLEV, Inc.'s target construction schedule for the entire 54-mile project (including contingencies and using conventional construction techniques), the cost study results were within 10% of the presented project cost.

Two investment grade ridership studies, with a Federal Railroad Administration appointed peer review panel of national experts, form the basis of these revenue calculations. While the fare structure has not been finalized, and further revenue optimization will be studied, a fare structure of \$5.00 between each station with 10-minute peak frequency of service intervals was used in the DEIS to provide an estimate of fare-based revenues.

Some passenger trips will comprise travel on more than one segment of the 54-mile route, thereby resulting in "passenger links", which represents the average number of segments traveled by each passenger in terms of route segments. Passenger link ridership differs slightly from total passenger trips, with each passenger trip averaging 1.2 to 1.3 links. Each link volume, plus special event trips, was multiplied by the \$5.00 segment fare and then by an annual multiplier of 300 days of normal usage to produce the annual revenue estimate.

The forecast for the annual fare box revenue for the initial operation from the Pittsburgh Airport to downtown is \$19,731,000. Additional non-fare box revenue accruing from advertising, extended parking, power and communications, naming rights, light freight, joint station development and other revenue sources is projected at

\$10,489,000 annually, for a combined total revenue forecast of \$30,220,000 for the airport to downtown segment.

The annual O&M expenses for this initial segment were calculated to be \$16,680,000. The basis for estimating O&M costs includes input from the technology supplier, Transrapid International, and staffing plans developed by MAGLEV, Inc. The O&M costs include maintenance of right-of-way, maintenance of vehicles, equipment and all guideway related infrastructure, labor for transportation of passengers and freight services, energy and utility supply, insurance and general administration expenses.

These projections provide an annual positive operating cash flow balance of \$13,540,000 for the initial year of operations. An Operating Pro Forma Cash Flow Schedule highlighting operating revenues, costs, debt service and maintenance reserve fund balances for the entire 54-mile project over a thirty-five year operating schedule was developed.

A Major Maintenance Reserve Fund is planned to be created from the surplus revenues generated by the project after O&M costs and debt service payments are covered. The reserve fund is designed to support vehicle replacements and major infrastructure reinvestment capital after twenty years of service. However, if the initial segment(s) is/are funded through the current high-speed section of the American Recovery and Reinvestment Act at a higher level federal funding, there should correspondingly be no debt service component.

Again, the Pennsylvania High-Speed Maglev Project offers an unprecedented opportunity to establish long-term high-speed rail service without the need for an annual operating subsidy.

**Precision Fabrication**

Construction of high-speed maglev initiates an important associated economic spin-off technology that offers additional long-term job creation. The precision manufacturing of large steel structures, such as required in the fabrication of high-speed maglev guideway, is vital to the performance and operation of the high-speed system. Guideway beams must be within five millimeters of deviation throughout a 204 foot-long beam, depending on the specific location on the guideway beam, to produce a product acceptable for high-speed maglev operations.

Heretofore, such precise fabrication of large welded components has generally been considered a liability because of the difficulty in controlling the welding process. However, MAGLEV, Inc is developing and demonstrating a fabrication methodology that not only addresses fabrication issues, but does so at reduced costs. These newly developed precision fabricating methods, with cost-reduction and quality benefits, will create new opportunities for the steel industry, shipbuilding, highway bridge and access-ramp construction and any other large-scale metal fabrication application

When applied to bridge component construction or rejuvenation, the benefits of precision fabrication will manifest themselves in the lower costs in direct fabrication and in reduced rework. This will make the tax funds dedicated to bridge construction go further. If we consider that the National Bridge Inventory statistics that more than 30 percent of all bridges in the United States are deficient in some way it is easy to see that even small cost reductions in fabrication can make a significant impact on projects funded by tax dollars. Our nation's fabrication industry will produce product less expensively with higher quality and product that is faster to market.

### **Job Stimulation from Building High-Speed Maglev**

Building high-speed maglev will be a long-term economic generator for our nation. The raw materials, fabrication expertise and construction requirements to build high-speed maglev by themselves would provide an economic stimulus of significant magnitude.

The system will use American-made steel guideway. At a prior T&I Railroad Sub-committee hearing, a former US Steel executive was asked what impact high-speed maglev would have on the nation's steel industry. He said that if this nation builds only 200 miles of high-speed maglev per year, it would require the total output of the Gary, Indiana plate mill just to provide the steel for maglev. It would require a 12.5% increase in the demand on the nation's total steel plate production.

Pennsylvania Transportation Secretary Al Biehler has identified job creation potential from transportation projects of 30,000 jobs of all types for every \$1 billion of transportation construction funds.

### **Raw Material Usage**

The following list shows some of the raw material usage associated with the construction of the 54-mile long Pennsylvania Project:

- 330,000 tons of plate steel
- 140,000 tons of steel reinforcing bar
- 41,000 tons of magnetic steel laminates
- 1,400 miles of aluminum conducting wire of ¾ in diameter
- 712,000 cubic yards of concrete

The vehicles will also require sheet aluminum, copper, steel and various non-metallics in the body structure.

The transportation power, signal, and communication and control system will require power transformers, computers and control electronics. The stations and support buildings themselves will require all the assorted materials that compose modern buildings.

### **Linking Cities through Travel Time Reduction**

Another concern impacting the growth of commerce in our region and in the United States is the increasing travel delays associated with congestion on the nation's highways and at its airports. Almost every day reports of road rage, and more increasingly, air rage are broadcast to us over the media emphasizing the growing frustration of travelers. Statistics on lost productivity from travel delays show the growth of the problem. The cities and regions that provide a mechanism for capturing that lost time will place themselves in a significant position to reap the tremendous economic benefits that will result.

High-speed maglev offers a means and opportunity to capture some of this lost travel time. As an example, the current highway travel time between downtown Philadelphia and downtown Pittsburgh requires about six hours. Traveling that distance by air with consideration of time delays at each airport makes that travel time average three hours. Since all maglev stations will be off line, traveling the same distance by high-speed maglev on an express run bypassing intermediate locations would require slightly less than two hours, even with stops at intermediate locations.

High-speed maglev offers an excellent return on public investment with the creation of 60,000 direct and indirect jobs for construction of the initial segment. It offers the ability to create an entirely new industry in Pennsylvania while delivering the most advanced intercity ground transportation system in the world. MAGLEV, Inc. has developed a precision fabricating system with computer-integrated technologies that were designed and developed to drive down the cost of building the system's guideway. This advanced technology is also applicable to bridge construction, ship building and other large-scale metal fabricating uses.

The Obama-Biden Administration's emphasis on high-speed passenger rail represents a major policy change for transportation in the United States. However, this transformation cannot take place overnight. We recognize the need for incremental improvement in rail passenger service throughout the United States, primarily through improvements in service provided by Amtrak in rights-of-way shared with freight service. But we must also begin to deploy true high-speed service where it will ultimately be part of a broader national network of high-speed service.

The Pennsylvania High-Speed Maglev Project is the only high-speed project that is ready for construction in the near term. We have all seen President Obama and Vice-President Biden repeatedly refer to the high-speed maglev train in Shanghai, China. Well, this is that same train and it is ready to be built right here in the U.S. and, if funded, can be completed within the next 2 1/2 years.

Statement of  
Kenneth Joseph  
Member, Council of Representatives  
National Association of Railroad Passengers  
Before the  
Subcommittee on Railroads  
The Honorable Corinne Brown, Chair  
Committee on Transportation and Infrastructure, U.S. House of Representatives

\* \* \*

Field Hearing at Pittsburgh:  
"Expanding Passenger Rail Service"

\* \* \*

June 22, 2009

**Witness:** Kenneth Joseph, 2964 Belrose Avenue, Pittsburgh, PA 15216, Daytime phone 412-454-5078  
**Organization represented:** National Association of Railroad Passengers [www.narprail.org](http://www.narprail.org) 900 Second St., NE, Suite 308, Washington, DC 20002-3557, phone 202-408-8362

Thank you very much for holding this hearing, and for the opportunity to testify. The National Association of Railroad Passengers has worked since 1967 for more and better passenger trains in the U.S. The Association is the largest citizen-based advocacy organization for train and rail transit passengers. Our mission: "A modern, customer-focused national passenger train network that provides a travel choice Americans want."

I was raised in Pittsburgh and have lived here most of my life. I have been fortunate enough to have opportunity to travel, so I am familiar with the travel choices available to us here in western Pennsylvania and the options available in other places.

For 180 years, the Pittsburgh region has been blessed to be part of major land routes to move people and goods quickly and safely to and from the nation's east coast ports and the heart of the nation. One consequence has been that western Pennsylvania had access to inexpensive and reliable transportation, making it an attractive area for businesses and families. Unfortunately, transportation options are narrowing for the region. We still have the Pennsylvania turnpike providing good access to Philadelphia in the east and Cleveland and Chicago in the west for travel by car, bus or truck. However, airline service at Pittsburgh is much more limited than it was ten years ago. The Greater Pittsburgh airport is no longer a hub and direct service is available to only a few cities. Even Harrisburg no longer has any direct service from Pittsburgh.

Western Pennsylvania also is underserved by passenger trains, both in comparison to the heyday of passenger rail, but also to what was available fifteen years ago. Just two routes serve western

Pennsylvania, each with a single daily round-trip: the Washington-Chicago *Capitol Limited* with stops at Pittsburgh and Connellsville and the New York-Pittsburgh *Pennsylvanian* along the historic Pennsylvania Railroad with stops at Lewistown, Huntingdon, Tyrone, Altoona, Johnstown, Latrobe, Greensburg and Pittsburgh.

The inadequacy of service in western Pennsylvania is apparent not just to Pennsylvanians but would be highlighted in any nationwide analysis of Amtrak. Twice within the past 15 years, Amtrak has cut Harrisburg-Pittsburgh service frequency from two round-trips to one. When Amtrak announced its major round of service cuts in 1996 (the first time Pittsburgh-New York service ever went down to once a day), Don Phillips, then with *The Washington Post* and perhaps the nation's leading rail and aviation reporter, expressed astonishment at de facto elimination of through service along the route of the *Broadway Limited*. NARP members well beyond Pennsylvania shared this view.

Although David Gunn has received much well-earned praise for his overall effort to restore Amtrak's credibility and the condition of its infrastructure and rolling stock, we strongly disagreed with his decision—taken in response to frustration over the express freight initiative—to completely exit the mail business as well, a business that had always been profitable for Amtrak. We have periodically urged Amtrak to restore that source of revenue, important because of its direct association with train operations and the ability to expand them.

The “kill-mail” decision was the basis on which Amtrak justified the 2005 service reduction, which eliminated schedule choice in western Pennsylvania and ended through service between Chicago and all Pennsylvania points except Pittsburgh. Travelers going by train between most Pennsylvania stations and all points west of Pittsburgh must endure a layover in Pittsburgh at times when options for diversion are not the best. The layover is about four hours westbound but can be longer if the connecting train is late. Eastbound, the scheduled layover is just over two hours except on Sunday when it is just over eight hours. Nonetheless, *Pennsylvanian* ridership in Fiscal 2008 was up 12% from the year before. For the first eight months of Fiscal 2009 (October-May), ridership was up 1% at a time when most intercity travel (including on many Amtrak short-distance trains) was down.

An obvious first step to improving western Pennsylvania service would be to restore roughly the New York-Pittsburgh-Chicago train that was dropped. The existing *Pennsylvanian* then could be rescheduled to give communities along the New York-Pittsburgh segment two attractively spaced daily departure times. This added train would be a major step forward even if—as with the service when it was dropped in 2005—the train ran without sleeping cars or sit-down meal service. This is within Amtrak's ability in terms of fleet size, if not operating grant.

To add more than a few New York-Pittsburgh frequencies would require major infrastructure improvements. Amtrak's Harrisburg-Pittsburgh route is owned by Norfolk Southern and has heavy freight traffic. A public-private partnership is needed to provide extra capacity on this line, which would allow for the operation of higher-speed passenger trains without compromising this crucial freight link. The railroad was originally built with three and four tracks, but has since been reduced to two as operators sought to cut maintenance costs. Third and fourth tracks should be rebuilt, a task made easier by the fact that the grade and roadbed is still intact. Afterwards, investment in electrification should be seriously considered, as this would allow even higher speeds, contain emissions at the power plant, and reduce fossil fuel use. Henry Posner III expanded on this in his May 10 *Pittsburgh Post-Gazette* op ed column, “The Obama rail challenge – I think we can.”



If the train was a real option for more passengers, all travelers would benefit from the more efficient use of existing infrastructure. Air traffic gridlock would be eased, providing rippling benefits across the Eastern seaboard. More cars would be taken off the road, easing traffic slowdowns and lowering road maintenance costs. Rail passengers would enjoy a more economical, comfortable, hassle-free and scenic way to travel. Downtowns along the route would be revitalized by residential and commercial development around stations. Many jobs would be created in the process. Moreover, everybody would breathe a little easier and we would be one step closer to meeting our obligations to cut emissions of climate-altering gases.

Failure to restore frequent, attractive rail passenger service to western Pennsylvania would deny the region an opportunity to take advantage of exciting developments elsewhere. Pennsylvania has invested a significant amount of money to provide frequent, fast rail service between Harrisburg and New York. To the west, Ohio is working on a plan to provide attractive rail service to connect its major cities. Indeed, Pittsburgh-Cleveland was one of four Ohio passenger train routes approved May 21 by Ohio Rail Development Commission members for inclusion in a \$7 million Programmatic Environmental Impact Statement.

It is imperative that western Pennsylvania have rail service that allows our residents to take advantage of these developments. As we learned last summer, passenger trains have great advantages over air and automobile. If service is not improved in western Pennsylvania, the region will be at a disadvantage compared with other areas where rail passenger service is being significantly improved.

Finally, I must echo the concerns of others about the need for capacity expansion at New York's Pennsylvania Station, since New York City is a major hub and the logical terminus for additional Pittsburgh-east trains. Based on plans concluded before President Obama's "game-changing" commitment to passenger trains, New Jersey Transit is proceeding with a \$9 billion project to build two, new Hudson River tunnels *which will not go to New York's Penn Station*. Amtrak has stated that this will result in need for another tunnel—fifth under the Hudson and third to Penn Station—earlier than would otherwise have been necessary. The planning need is to get the tunnel into service by 2025. However, strong public pressure to speed that timetable could result either from a major service outage in the existing, century-old tunnels (which would paralyze all Amtrak and half of NJT train service between New York and New Jersey) or from growth in passenger traffic that exceeds current expectations.

Thank you again for the opportunity to testify. I will do my best to answer any questions you might have.

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**TESTIMONY**

**OF**

**RAYMOND V. LANG  
SENIOR DIRECTOR-NATIONAL STATE RELATIONS  
AMTRAK  
525 W. VAN BUREN STREET, CHICAGO, IL 60607**

**BEFORE THE**

**SUBCOMMITTEE ON RAILROADS, PIPELINES AND  
HAZARDOUS MATERIALS**

**OF THE**

**HOUSE COMMITTEE ON TRANSPORTATION  
AND INFRASTRUCTURE**

**MONDAY, JUNE 22, 2009  
10:00 A.M.**

**U.S. FEDERAL DISTRICT COURTHOUSE  
700 GRANT STREET  
PITTSBURGH, PA 15219**

Good morning, and thank you very much for the opportunity to testify before your Committee today. My name is Ray Lang, and I am the Senior Director for Government Affairs at Amtrak; I have been with Amtrak for fourteen years, and I manage our outreach and liaison program for all states and local governments. As you know, recent legislation such as the Passenger Rail Investment and Improvement Act (or "PRIIA") and the American Recovery and Reinvestment Act (or "ARRA") have established a number of very specific requirements for studies of potential service improvements, as well as a grant program that is meant to fund partnerships between states and Amtrak for the same purpose.

Amtrak and Pennsylvania have a significant and enduring partnership that spans the entire 38 year history of Amtrak. We operate approximately 120 daily trains through Pennsylvania. We employ 2,539 Pennsylvania residents, and the company spent \$110 million for goods and services in Pennsylvania last year. As Pennsylvania was the Keystone State of the colonies, it has now become the keystone of Amtrak's busy Northeast Corridor service. This partnership has provided other states a model for the translation of rail service from concept to reality. We have long enjoyed a strong relationship, and I want to thank Secretary Biehler and Toby Fauver for the work the state has done in holding up its end of the partnership.

That's a good foundation for future opportunities in Pennsylvania, because PRIIA envisions a strategy built on partnerships. Amtrak and the states will work together to develop short distance corridor services ranging from about 100 to 600 miles in length. One very successful partnership of the kind the act envisions took place here in Pennsylvania, and that was the restoration of electrified service to our Keystone Corridor between Philadelphia and Harrisburg. Under the

leadership of Governor Ed Rendell and Amtrak President David L. Gunn, the state partnered with Amtrak to invest \$145 million; each put up half of the total. We restored the electrification west of Paoli and improved the track for 110 mph service. As a result, we were able to offer faster and more frequent service. The results have been exciting. Ridership grew by 20.1% in FY 2007 and by 19.8% in FY 2008 – a striking demonstration of the relevance of rail. Higher speeds and the elimination of the engine change at Philadelphia cut schedule times and made our trains competitive with airline service. The Keystone Corridor is a major triumph, and it's a model we would like to emulate, and potentially, to extend.

I believe this success has influenced the legislation, and Section 224 of PRIIA mandates studies on the costs and benefits of service on six routes specified in the Act. Two of those studies touch on existing routes in Western Pennsylvania, and will be of interest in the context of today's hearing. One study will examine the Harrisburg to Pittsburgh route, currently served by the daily *Pennsylvanian*. The statute requires a report "to determine whether to increase frequency of passenger rail service along the route or along segments of the route." The other requires a study of the *Capitol Limited* route between Cumberland, Maryland and Pittsburgh to determine whether we should reinstate a station stop at Rockwood, Pennsylvania. These reports are due to the Committee on October 16, 2009. We have solicited proposals for the study, and we expect to make the award around July 1<sup>st</sup>. We are moving forward and expect to meet the deadline.

These are only two of many activities Amtrak will be undertaking this summer. We are currently going all out on some major development projects, directed by both PRIIA and ARRA, so it might be useful if I summarize these developments. We are, for example, undertaking 6

PRIIA-mandated studies of routes and services (2 of which I mentioned previously), and we have received requests for involvement with 283 projects in 34 states for projects to be funded by ARRA – though states will now be studying the FRA guidance that came out last week, and taking a hard look at what they really want.

Last year, when George Bush signed PRIIA into law, it established a Federal capital grant program for states that wished to develop intercity passenger rail service. When Congress passed the American Recovery and Reinvestment Act in 2009, that act included \$8 billion in funding for the capital grant program authorized in PRIIA. This legislation is critical to shaping the continued development of intercity passenger rail. For example, ARRA funds will be available for individual projects, generally small projects that are expected to provide discrete levels of benefit to an existing route; they will also be available for ‘corridor programs,’ which will be larger bundles of projects that are expected to provide for improved passenger service over whole corridors. While PRIIA does provide access to capital funding, operating funds are a state responsibility – so if, for example, the state wishes to pursue an expansion of the Harrisburg to Pittsburgh service, state operating funding will be a precondition for Federal capital funding. The freight railroads will also be central to any discussion – Norfolk Southern, for example, owns much of the trackage that’s used for our current Harrisburg-Pittsburgh service.

Amtrak is eager to support ARRA applications, and I think as a service provider we’re capable of supporting a range of visions. Projects could range from startup corridors to expansion of mature services, with top speeds ranging from 79 to 110 up to 150 miles per hour. We have the expertise and we can discuss our experience and the developmental needs of any of these types

of projects with any interested state – and we are willing and eager to partner for service development. For this service to work, and for the investments to be attractive, we must be able to show demonstrable results. These could include such public benefits as decreased congestion, greater modal share, and significant increases in ridership. Projects that can demonstrate these benefits will be eligible for funding. There are a lot of people looking to fund projects, but we will be looking for the ones that confer the serious benefits PRIIA demands.

This is a huge challenge, but for Amtrak, it's the opportunity of our lifetime. We have a real chance to pursue some great opportunities for development of useful and economically viable routes in partnership with the states, and to do so within the context of a public policy that has done a great deal to "level the playing field" and remove some of the disadvantages under which rail has traditionally labored. I believe we are going to help our country address some very real needs, and I am pleased and excited to be at Amtrak right now. I look forward to working with you in the coming months as we move forward, and I will be happy to answer any questions you might have.

**Statement By Patrick McMahon, President****Amalgamated Transit Union (ATU) Local 85**

Representative Altmire, thank you for the opportunity to testify today on behalf of the Amalgamated Transit Union (ATU), the largest labor organization representing public transportation, paratransit, over-the-road, and school bus workers in the United States and Canada, with more than 185,000 members in over 270 locals throughout 46 states and nine provinces. My name is Patrick McMahon, President/Business Agent of ATU Local 85, representing the transit workers here in Allegheny County. I also serve as President of the ATU Pennsylvania Joint Conference Board, representing thousands of workers in cities across the commonwealth.

***Passenger Rail Plays a Critical Role***

Without question, passenger rail can play a critical role in our efforts to take more cars off the road, improve our air quality, and reduce our dependence on foreign oil. The energy and environmental benefits of transit are significant. Expanding passenger train options between and into U.S. urban centers would substantially reduce highway congestion, fuel consumption and greenhouse gas emissions. According to the American Public Transportation Association (APTA), a single person, commuting alone by car, who switches a 20-mile round trip commute to existing public transportation, can reduce his or her annual CO2 emissions by 4,800 pounds per year, equal to a 10% reduction in all greenhouse gases produced by a typical two-adult, two-car household. As we have seen over the past several months, the price of gas is once again on the rise and public transportation riders will obviously be enjoying a significant economic savings. A person can achieve an average annual savings of more than \$8,000 per year by taking public transportation instead of driving.

However, we have learned from our members across the U.S. and Canada that there is no "one-size fits all" solution to transportation mobility issues. Transportation planners, elected officials, transit dependent individuals, transit labor, and leaders from throughout any particular community must be consulted early and often before any recommendations move forward in what must be a local decision. Many issues come into play when considering rail plans: What is the projected ridership? What will be the impact on current bus service? Are there other alternatives? And of course, what is the estimated cost of such a rail plan?

The answers to these questions of course depend upon the type of rail system that is designated for construction. Heavy rail (subway) systems have been very successful in places such as New York, Chicago, Philadelphia, San Francisco, and Washington, D.C. Commuter rail (long distance service) has been in place in New York, New Jersey,

Chicago and other areas for many years, while cities such as Seattle have recently found success with this type of system.

However, in recent years, light rail transit (above ground, slower moving, relatively short distance, typically with grade crossings) has been the mode of choice during a time period when cost is a major factor and so many communities across the U.S. are in line for federal transit dollars. Salt Lake City, UT, Portland, Oregon and Charlotte, NC are three shining examples of recent light rail success stories in the past two decades. Light rail has dramatically changed the way people travel in these cities, making the communities more "livable." And at a time when we have all seen our home values plummet, light rail has been shown to significantly increase the value of real estate built nearby the transit system.

### *Western Pennsylvania Transit Issues*

#### **So just what is the right choice for Southwestern Pennsylvania?**

In Western Pennsylvania, the Port Authority of Allegheny County is by far the region's largest public transportation system. Our system consists of light rail, bus service and two incline planes. Incline planes are very unusual and service the Mt. Washington area of the City. I am certain that if you have ever watched one of the World Champion Steelers football games or the Stanley Cup champion Penguins hockey games, the national media has treated you to the spectacular view of our City and the Pittsburgh inclines traveling up and down Mt. Washington.

Because of the topography in western Pennsylvania, these modes of transportation are all necessary. As I have previously pointed out, all local providers will have different needs and one type of service will obviously not fit all. Clearly, where there are flatlands and no rivers, a system consisting exclusively of heavy rails may be easier to construct and therefore be the system of choice. But in western Pennsylvania, we need the three modes which we currently have, and we especially need an expansion of a well-designed light rail system, as well as additional bus service to augment that light rail system.

Our current light rail commuter system has more than 30 miles of track and work is nearly completed on an additional 1.2 mile spurline to service the North Shore area of Pittsburgh. The North Shore is the home of the Pittsburgh Pirates and Pittsburgh Steelers and the site of the soon-to-be-open Pittsburgh Rivers Casino. The primary area now being serviced by our light rail system is the South Hills area of Allegheny County. Interestingly enough, probably our heaviest ridership exists on the light rail system. The reason is obvious. The light rail system operates on its own right-of-way, and while the average speed of a light rail system may be less than 20 mph, it is far quicker and efficient than any automobile traveling the same distances into the City during the daily commuting hours. In our community, there can be little question that the need for the expansion of the light rail system to certain areas is more than acute.



From the City center traveling east and northeast, the main thoroughfares are the Parkway East and the Route 28 corridor. Anyone living in these areas can tell you without contradiction that when commuting on the Parkway East and Route 28, it is an agony without parallel. These areas are the most densely populated areas of Allegheny County. The only alternate routes for the Parkway East are Fifth and Forbes Avenues. For the Route 28 corridor, there is no alternative! If you travel out Fifth and/or Forbes Avenues, you will find tens of thousands of students at Robert Morris College, Duquesne University, the University of Pittsburgh, Carnegie-Mellon University, Carlow College and Chatham College, as well as the School for the Blind. In addition, the Oakland area serves as the headquarters for world class medical services and technology provided by the University of Pittsburgh Medical Center. Anyone familiar with our area knows that the Oakland area is home to at least seven major hospitals within two miles of each other. It is the hub for medical treatment, not only for those living in western Pennsylvania, but also for others throughout our nation.

Further east lies the densely populated areas of Shadyside and the East End. Along the northern edge of the Allegheny River we find the browned-out towns of Millvale, Sharpsburg and others. All of those areas, north and east of Pittsburgh, are served exclusively by only one corridor, and that is the Route 28 corridor, which, by all accounts, is a traveler's worst nightmare. This roadway has not only been plagued by more volume in vehicle traffic than it can possibly handle, but landslides and repairs to Route 28 have become the norm rather than the exception.

In addition to these areas, the other rapidly growing area is the South Side of Pittsburgh where the once mighty J&L Steel Mill stood and provided the energy for a vibrant community. On any given night, the streets of the South Side are jammed with people going to theaters, restaurants and shops.

Anyone from western Pennsylvania is keenly aware that the streets and roads of these areas are constantly crowded and in desperate need of a efficient light rail system that will service, enhance and expand the economic development and vitality of our entire region.

There is no question that a light rail system is necessary to continue our economic development and energize a viable metropolitan area. While some have suggested that a heavy rail system may be of some benefit, I believe our experience in that area has been just the opposite. At one time we had a heavy rail system that serviced both the western communities through the McKees Rocks, Coraopolis and Aliquippa area, as well as one servicing the McKeesport area, both of which failed simply because heavy rail is inadequate to get into those populated areas that need the most service. I believe a light rail system built either above or under ground or on its own right-of-way is the only way to keep our region alive and thriving.

As anyone from western Pennsylvania knows, the center City of Pittsburgh is in desperate need of revitalization and commercial traffic. We have lost department store after department store, restaurants, shops and other facilities simply because it is too

difficult to get in and out of the City of Pittsburgh. Bringing tens of thousands of students and residents from these areas into the City through easy and efficient light rail transportation is the very shot in the arm which the City of Pittsburgh desperately needs.

In order to service these areas, I advocate that any new light rail system be strategically integrated with our current system. Currently, we have several downtown Pittsburgh facilities to which any new development could be connected. In particular, the new station at Gateway Center, the station at U.S. Steel Tower, and/or our spinline which stretches to the beginning of the East Busway would make an excellent jumping off point to extend the system out toward Oakland and the East End through the Fifth/Forbes Avenues corridor. As I envision this system, our current Millvale ramp would be an ideal area in which the system could cross the Allegheny River and run northeast along the Allegheny. Along the northeast side of the Allegheny, there are several railroad beds which are either abandoned or underused that can serve as the conduit for the light rail system. These rail beds travel along the Allegheny River and are ideally suited to service the Route 28 corridor. Extending our light rail system through the Route 28 corridor and augmenting that service by providing park-n-ride lots and bus services throughout the various communities that dot this area will provide service not only to the residents of Allegheny County, but will also allow people from Armstrong, Butler and Westmoreland Counties to access our City and the North Shore destinations currently being developed by our new light rail to the North Shore.

In addition, the line that would be running to Oakland should have a spur that would cross the Monongahela River to Pittsburgh's South Side and connect to the existing South Side Station and thereby link up the entire light rail system. This integrated combination will essentially tie the central City business district and the North Shore with the region's most densely populated areas and stimulate the revitalization of downtown Pittsburgh and the development of the North Shore.

As previously stated, because of our topography, light rail systems are not necessarily efficient for all of our areas. Our current bus system has dedicated busways that serve portions of the East, North Hills and West Hills areas. Over the years, there has been much talk about having a light rail system run to the Greater Pittsburgh International Airport. At one point in time, I would have believed that to be a most important development for our light rail system. However, because of the issues that exist at the Pittsburgh Airport with air traffic being at an all time low, the Airport no longer serving as a hub to any major carrier, it is my opinion that the dedicated busway which currently services the Greater Pittsburgh International Airport area is sufficient for our current needs. In addition, while a light rail system running through the center of densely populated areas will definitely be the driving force in providing efficient transportation to our area, bus service will be necessary to connect to the light rail system. In western Pennsylvania, we are surrounded by hills and obstacles which prohibit the expansion of light rail into certain areas. Therefore, expanded bus service for the entire Allegheny County, that will connect with the light rail system, is an essential part of the entire picture.

Through your efforts and with the financial help which only government can provide, we can meet the transportation challenge of western Pennsylvania and keep our area as one of the world's most livable places.

***Operating Assistance is Needed***

Congressman, no matter what mode is ultimately chosen by our community, I would be remiss if I did not mention a critical issue facing the transit industry as a whole, and especially here in Allegheny County. In all my years involved here at the Port Authority, I have never witnessed such extraordinary circumstances as we are seeing today.

Record high gas prices in 2008 caused millions of people to try public transportation, and it is now apparent that the price of oil is once again on the rise despite the fact that many transit systems continue to report capacity issues. Ridership is at a fifty-year high. Yet, ironically, at a time when Americans are leaving their cars at home like never before, public transportation systems are being forced to implement painful service cuts and fare increases because of shortages in state and local revenues.

We strongly believe that the federal surface transportation reauthorization bill needs to not only increase funding for public transit capital projects but also include funding for operating assistance.

***Fare Increases, Service Cuts***

All across the nation, transit systems are reluctantly implementing some of the steepest fare increases in recent history. And as if the fare increases are not enough, the service cuts may actually be worse. Generally, when routes get cut, transit systems tend to look towards those with low ridership -- early morning, late night, and weekend service. People who work non-traditional hours, typically minorities who have no other means of transportation, are disproportionately affected. The single mom who now gets her kids up at 4:30 in the morning to catch two buses in time to get her children to daycare and then herself to work cannot be expected to wait an additional hour for that transfer bus to arrive, standing in the freezing cold with two kids in tow. But that is exactly what is happening out there. Our members nationwide have seen it firsthand.

***Operating Assistance is Needed***

ATU supports the inclusion of H.R. 2746 as part of the reauthorization package. This bill would provide for increased flexibility in the use of federal transit funds by allowing transit systems of all sizes to use a percentage of their formula funds for operations. Under current law, only transit systems located in urbanized areas under 200,000 in

population may use their funds for operating purposes. All other areas, including Pittsburgh, may use their funds only for capital projects.

This bill would eliminate the "cliff" that is reached when the population reaches 200,000 by allowing systems in all areas to use at least a portion of their funds for operations – the larger the population, the smaller the percentage that would be able to be used for operating. Here in Allegheny County, a maximum of 30% of transit formula funds could be used for operating assistance.

Significantly, the bill would encourage state and local governments to invest in transit through a unique incentive program. The legislation provides for the conditional use of federal formula funds for operating purposes based on whether non-federal sources of revenue for a particular transit system increase from one fiscal year to the next. For example, if the Port Authority receives a five percent increase in state/local investment compared to the previous year, it would be eligible to use up to five percent of its federal formula funds for operations (in addition to the 30% discussed above). If this provision had been in place in 2004, perhaps the Pennsylvania State Legislature would not have taken several years to come up with a statewide transit bailout.

In summary, this bill would provide transit systems with **local control** of their federal transit funds, allowing them to preserve critical service and hold down fares during tough economic times so that working people may be offered quality, affordable public transportation.

Congressman, thank you for the opportunity to highlight this critical issue in this forum. As discussed, whether we ultimately choose expanded rail service (light rail, heavy rail or commuter rail) or efficient bus rapid transit, it will be of no consequence if there is no funding available to operate that shiny new bus or train.

It makes no sense whatsoever to spend capital money building a system and then have no money to operate it. Would anyone build a brand new home if they had insufficient money to pay for the gas, electric, sewage and water bills?

I am pleased to answer any questions.

**TESTIMONY OF  
HENRY POSNER III  
CHAIRMAN  
RAILROAD DEVELOPMENT CORPORATION**

The recent announcement by the Obama administration about high-speed rail has initiated a frenzy of speculation as to what this might mean for Pittsburgh, as the proposed western end of the "Keystone Corridor." As a Pittsburgh resident active in freight and passenger railroading in both this country and Europe, I offer the following comments in order to help focus our thinking.

1. This is a major opportunity for both rail and Pennsylvania. For the first time in history we have a president focused on rail as an environmentally friendly, fuel-efficient alternative to congested highways, for both freight and passengers.
2. High-speed rail to Pittsburgh will not be maglev, and probably not even a bullet train. Funding is limited, and realistically speaking the existence of the Allegheny Mountains provides a geographic constraint not found in France, Japan, Germany and other locations where truly high-speed rail (150 mph and over) flourishes. What is realistic, however, is a more flexible definition of high-speed rail, i.e. using existing rights of way and making incremental improvements for speed and capacity. That this can be accomplished is demonstrated in Sweden, where the often-overlooked X-2000 tilt trains achieve high speeds on the existing lines by taking the curves faster.
3. There is exactly one railroad line west of Harrisburg, that of Norfolk Southern. This is a high-density freight railroad, in contrast with the Amtrak-owned high-speed passenger railroad east of Harrisburg. To the extent that the Norfolk Southern line might be used for higher speeds and increased frequency of passenger service to Pittsburgh, this could be accomplished through a public-private partnership that would not compromise the crucial role that this corridor represents for the national freight network: in most locations what was once a four-track line is now a two or three-track line, so the right of way is already there. Ironically, this would mean restoring much of the capacity that was liquidated in the era of regulation. In those days railroads were considered an obsolete, dying industry, and their downsizing was part of our national transportation policy. Investment in electrification might also be part of the mix, as the environmental benefits would be an additional benefit.
4. Because a limited number of corridors will be funded, and because the Obama initiative is specifically encouraging regions to compete with each other for funding, Pennsylvania will need to get much more serious just to catch up. For example, the Midwest has had a high-speed plan in place for years based on a Chicago hub and incremental improvements to existing corridors, thus positioning them as "shovel-ready" projects. The good news, however, is that the Keystone Corridor lies entirely within the borders of Pennsylvania, and it involves only one railroad; this makes the initiative more manageable.
5. For the above reasons, the steps needed for extension of the Keystone Corridor to Pittsburgh are, in sequential order:

- a. Construct a vision for the corridor tempered by reality, and consider solutions such as tilt trains given that this is a mountainous, heavy freight corridor.
- b. Focus on a public-private partnership with Norfolk Southern that would not compromise the freight business, which is part of a national network generally acknowledged as the world's best.
- c. Get serious at the state level, keeping in mind that we are competing with other states much further along -- and that the current reality is only one Amtrak train per day between Pittsburgh and Harrisburg.
- d. Focus on creating transportation, as opposed to jobs. Should the economics prove competitive, the jobs will follow as a natural and sustainable byproduct.

As Western Pennsylvanians, we should insist that our political leadership approach this as an opportunity that, if pursued with a combination of realistic expectations, economic discipline and political will, can in fact compete with other corridor initiatives.

My grandfather, James T. MacMurdo, was a signal maintainer for the Pennsylvania Railroad in Blairsville. In the time of the Depression, he was reassigned to work on extending the electrification from Philadelphia to Harrisburg, an investment that created jobs in tough times but more importantly resulted in the infrastructure that serves today as the basis for the revived Keystone Corridor east of Harrisburg.

Interestingly, the ultimate vision was electrification to Pittsburgh; fulfilling this would complete the vindication of an industry characterized as obsolete and bankrupt by the time I entered it. But this is more about the future than about history!



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June 22, 2009

The Honorable Corrine Brown  
Chairwoman  
Transportation Subcommittee on Railroads, Pipelines and Hazardous Materials  
U.S. House Committee on Transportation and Infrastructure  
2336 Rayburn House Office Building  
Washington, DC 20515

Dear Madam Chairwoman:

I submit the below as my written testimony in conjunction with the field hearing in Pittsburgh on June 22, 2009. I appreciate the opportunity to make my opinions part of the record.

Sincerely,

RAILROAD DEVELOPMENT CORPORATION

Henry Posner III  
Chairman

**post-gazette NOW**  
Pittsburgh Post-Gazette  
**BUSINESS / OPINION**

**Commentary: The Obama rail challenge -- I think we can**

Sunday, May 10, 2009  
By Henry Posner III

The recent announcement by the Obama administration about high-speed rail has initiated a frenzy of speculation as to what this might mean for Pittsburgh, as the proposed western end of the "Keystone Corridor." As a Pittsburgh resident active in freight and passenger railroading in both this country and Europe, I offer the following comments in order to help focus our thinking.

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MORE >>

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<http://www.post-gazette.com/pg/09130/968828-432.stm>

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Henry Posner III is chairman of Railroad Development Corporation, [www.rdc.com](http://www.rdc.com), which invests in and operates railways worldwide. He can be perceived to be shooting himself in the foot by writing this editorial, as he also serves as chairman of the Iowa Interstate Railroad (which is part of the Midwest High Speed Rail Coalition that is competing for the same funding), and chairman of the Steel City Flyer, a business-class express bus service to Harrisburg (which will be put out of business by high-speed rail). Most recently the government of France announced a joint venture with RDC to revive its cartoad freight business.





**The Pennsylvania State University**

**Testimony before the  
Committee on Transportation and Infrastructure's Subcommittee on  
Railroads, Pipelines, and Hazardous Materials  
On "Expanding Passenger Rail Service"**

June 22, 2009

Prepared by:

Daniel W. Sieminski  
Associate Vice President for  
Finance & Business

The Pennsylvania State University  
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Daniel W. Sieminski  
Associate Vice President for Finance and Business  
The Pennsylvania State University  
High Speed Rail Written Testimony  
U. S. House of Representatives  
Committee on Transportation and Infrastructure's  
Subcommittee on Railroads, Pipelines, and Hazardous Materials  
June 22, 2009

Good morning, Madame Chair, ranking member Shuster, and the other members of the Subcommittee on Railroads, Pipelines and Hazardous Materials. My name is Daniel Sieminski and I am the Associate Vice President for Finance and Business at the Pennsylvania State University. I also have with me Dr. Teresa Davis, who is Penn State's Director of Transportation Services.

It is an honor for me to be here to testify on behalf of the Pennsylvania State University in support of the expansion of passenger rail service in Pennsylvania, particularly to State College in Centre County. The Pennsylvania State University is very encouraged about the prospect of high speed rail service coming to the central part of the Commonwealth of Pennsylvania.

We see many potential benefits of such a high speed rail system to include greater access and convenience to the region and an alternative and economical means to move people quickly and efficiently. Recognizing that State College is the home of the Pennsylvania State University's University Park campus, we believe it is strategically important to the Commonwealth, as well as the nation, to include State College in the Pennsylvania Rail Network.

We also can not discount the advantages of high-speed rail to our environment. One of the University's strategic goals is environmental stewardship. The University's vision for environmental stewardship is aimed at conducting the University's business in a manner that demonstrates commitment to and movement toward sustainability practices. One of the goals is to establish environmentally responsible transportation practices. High-speed rail as a transportation alternative meets that goal.

When considering State College and the surrounding communities from afar, one might ask, "What is so important about making State College part of the Pennsylvania high speed rail network?" We believe the following information provides the answer to that question and offers insights regarding what the future may hold.

There is no doubt that a traditional college education will continue to be of great importance to society and that centers for excellence in research will continue to be highly valued well into the future. What is in doubt, however, is how effective we can be in providing a transportation system that serves the needs of the diverse group of individuals wishing to take advantage of the benefits that Penn State has to offer.

The notion of high-speed passenger rail service to State College, Pennsylvania is not a new one. The first paragraph of a 1985 report entitled, *Pennsylvania High Speed Rail Feasibility Study*, (Attachment A), reads:

“A high-speed rail passenger system across Pennsylvania could offer rapid, all-weather travel between Philadelphia and Pittsburgh but also create tens of thousands of jobs, pump billions of dollars into the state economy, and spark countless opportunities for real estate development.”

A follow-up report published almost 20 years ago in 1990 and entitled, *Pennsylvania High Speed Intercity Rail Passenger Commission Final Report* (Attachment B) further emphasized the importance of high speed rail service between Pittsburgh and Philadelphia through Harrisburg. Both reports included trains being routed through State College, suggesting a connection through Central Pennsylvania would be beneficial.

Although we have not attached a report entitled, *Pennsylvania Statewide Passenger Rail Needs Assessment*, which was prepared by the Pennsylvania State Transportation Advisory Committee in December 2001, we do believe the report should be noted. The Committee conducted regional meetings in each of the seven regions defined in the Commonwealth. State College was referenced in three of these meetings regarding passenger rail service. <http://ftp.dot.state.pa.us/public/pdf/executivereport.pdf>

Going back to 1985, State College has seen great improvements in transportation with the addition of four-lane highways to Route 322 between Harrisburg and Potters Mills, extensive upgrades to Route 22 between Pittsburgh and State College, and the construction of Interstate 99 between the Pennsylvania Turnpike and Interstate 80. Each one of these improvements has improved access and convenience, and contributed to safer travel.

The University Park Airport has enjoyed continued investment in facilities and services, <http://www.statecollegeairport.org/>. In the period 1985-2007 University Park Airport experienced a 208% increase in annual passenger enplanements, increasing from 46,709 to 144,160. This is a result of improving facilities and various improvements in air service. With this volume, University Park Airport, in 2007, became the sixth busiest scheduled service airport in Pennsylvania.

The Centre Area Transportation Authority (CATA) <http://www.catabus.com/achistory.htm> provides the third largest bus service in the commonwealth moving over 6.8 million riders last year. Only Pittsburgh and Philadelphia have larger systems. Although strictly a service provided within the State College region, we believe this ranking helps demonstrate the importance of public transportation to those living in State College.

The Pennsylvania State University has focused on providing transportation options over the past ten years. In 1999, the University changed the campus bus system to a no-fare system to encourage use of transit on campus and discourage the single occupant vehicle. In a partnership with CATA, the University implemented a Rideshare program that now boasts over 850 participants and a discounted mass transit bus pass program currently used by over 750 employees. Additionally, we worked with CATA to enhance the regional vanpool program resulting in over sixteen vanpools moving employees

from all directions into State College. Last year, a web-based rideshare program was added to help students share transportation to and from the University.

Two years ago, in response to requests by both employees and students, the University partnered with Fullington Bus Company to provide a weekend express bus service to New York City for students, employees and the community. This service moved over 6,300 people last year reducing single occupant vehicle congestion on the Commonwealth roadways. This year, due to requests, we will be providing a trial program for a weekend express bus to Baltimore and Washington D.C..

In cooperation with the Hershey Medical Center we run two shuttle routes per weekday to transport personnel conducting University business between State College and Hershey. The participation of our University and community members in these transportation alternatives reflects the willingness of people to use alternative modes of transportation when available. Therefore, it is unfortunate that passenger rail service has not yet been added to the list of transportation improvements to the State College region.

While State College continues to see improvements in highway systems, airport capacity, and bus service, the closest high-speed railroad passenger service is in Harrisburg which is more than 90 miles away. In many ways, that 90 mile separation creates a barrier for many people traveling to or from State College. Although this connection has been discussed in the past, high-speed rail, even for a portion of the trip, has not been seriously considered as a transportation alternative.

Throughout the Commonwealth, Penn State's enrollment totaled 92,613 during the Fall 2008 semester, making Penn State one of the largest universities in the nation.

<http://www.budget.psu.edu/FactBook/StudentDynamic/PANonPASummary.aspx?YearCode=2008Enr>

While not all of these students are enrolled at University Park, one must wonder what a University Park student would say, if high-speed rail was one of the transportation options.

If it's one of Penn State's 44,112 students at University Park, he or she might say, "High-speed rail is an affordable and efficient alternative for my travel between home and University Park for holidays and special weekends."

If it's one of Penn State's 14,545 out-of-state students at University Park, he or she might decide, "High-speed rail is the quickest way possible because I don't have time to waste sitting in airports or in traffic riding a long distance bus."

If it's one of Penn State's 3,617 international students at University Park, they might conclude, "High-speed rail provides dependable and reliable transportation to and from any number of major international airports."

Penn State is also recognized as one of the major research universities in the nation. In 2006, Penn State was ranked 13<sup>th</sup> nationally with Research and Development Expenditures totaling

\$644,182,000. <http://www.budget.psu.edu/FactBook/Research2007/Reseexpe.asp> In fiscal year 2007-08, these expenditures grew to \$717,244,000.

Penn State Conferences and Institutes <http://www.outreach.psu.edu/conferences/> boasts a successful 25-year tradition of offering attendees from around the world the highest level of education and training. By attending any of Penn State's highly respected conferences, one can expect continued educational excellence, state-of-the-art facilities, and superior service.

- Nearly 50,000 people attend our conferences and programs each year.
- These conferences are a direct link to the research and services of Penn State's colleges and faculty.
- More than 300 conferences and programs are organized by the Department of Conferences and Institutes annually.

It is worth noting events hosted by State College such as the National Governor's Association annual meeting in July 2000 and the Central Pennsylvania Festival of the Arts, which brings at least 100,000 people to State College each year in July.

Penn State offers summer camps and year-round programs in sports, arts, sciences, adventure, nature, leadership, and career exploration <http://www.outreach.psu.edu/youth/> at nearly all of the Penn State locations. Every year more than 220,000 youth from across the country have memorable Penn State experiences with Penn State faculty, staff, and graduate students who care about helping youth excel.

No discussion about visitors to Penn State can ignore the excitement of Nittany Lion Football. Beaver Stadium, the home of Penn State Football, boasts a current capacity of 107,000. <http://www.gopsusports.com/facilities/beaver-stadium.html> At least six weekends a year, State College becomes the "3rd largest city" in Pennsylvania when Nittany Lion fans gather for a football weekend and to watch their team play a Big Ten opponent. Beaver Stadium is noted for being the second largest football stadium in the country and is often filled to capacity.

Penn State Football was a major spectator sport long before Penn State became a member of the Big Ten in 1990. The University's membership in the Big Ten further demonstrates the importance of high-speed rail service to State College, as one looks beyond the borders of Pennsylvania and potential links to the high-speed rail service expansion in the mid-west.

The economic benefit of students, research, conferences and youth camps, and even Penn State Football is summarized in a 2008 economic impact analysis performed by Tripp Umbach. <http://econimpact.psu.edu/> The report states,

"Penn State contributes more to the state's economy annually than any other industry. In 2008, the University generated \$8.5 billion in direct and indirect economic impact and an additional \$8.7 billion through business services, research commercialization, and the activities of alumni, for a total of more than \$17 billion."

Attachment C, entitled "Penn State: Giving Back", provides a summary of the University's economic impact in the Commonwealth. Relative to high-speed rail, one of the economic benefits mentioned states,

"In 2008, out-of-state visitors to Penn State generated nearly \$777 million in the Pennsylvania economy."

When we think of State College we know it is much more than the Pennsylvania State University. It is a vibrant community with a stable economy. Located in the center of Centre County, it is part of the Centre Region Council of Governments <http://www.crcog.net/>, which in addition to the Borough of State College includes the townships of College, Ferguson, Halfmoon, Harris, and Patton.

Two of the many fine organizations existing in State College include:

- 1) The Chamber of Business & Industry of Centre County is the largest and most comprehensive chamber in the county. It is the premier resource for anyone interested in living, working or doing business in the heart of Pennsylvania. <http://www.cbicc.org/> Its goal is to promote healthy business growth while maintaining the high quality of life in Centre County.
- 2) The Central Pennsylvania Convention & Visitors Bureau (CPCVB) is a nonprofit, membership-based organization committed to the fundamental principal that convention and visitor business can be attracted to an area more effectively through "coordinated group action" [www.centralpacvb.org](http://www.centralpacvb.org) The Convention and Visitors Bureau is the County's single, most important destination marketing organization, projecting an image for the area into various targeted markets.

We wish to include, as part of the record, letters from the Centre Region Council of Governments, the Chamber of Business & Industry of Centre County, the Central Pennsylvania Convention & Visitors Bureau and the Centre Area Transportation Authority. These letters are included in Attachment D.

In closing, I would, once again, like to thank the Committee for allowing me to testify in support of bringing high-speed passenger rail service to State College, Pennsylvania. Borrowing a quote from the 1990 Pennsylvania High Speed Intercity Rail Passenger Commission Final Report, the report stated:

"High-speed rail would be a catalyst for economic growth – growth that would help the state overcome years of declining investments, jobs, and population, and growth that would help reduce unemployment to a more desirable level, and provide substantial tax income for the Commonwealth."

We believe including State College, Pennsylvania as part of the high-speed passenger rail network is strategically important to the Commonwealth for the reasons I have brought to you today.

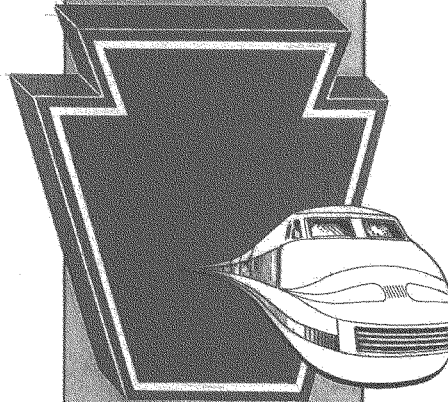
At this time, I would be pleased to answer any questions you may have.

Attachment A

PENNSYLVANIA  
HIGH SPEED RAIL  
FEASIBILITY  
STUDY

**EXECUTIVE  
SUMMARY**  
PHASE I

PREPARED FOR:  
PENNSYLVANIA  
HIGH SPEED  
INTERCITY  
RAIL PASSENGER  
COMMISSION



PARSONS BRINCKERHOFF/  
GANNETT FLEMING  
FEBRUARY 1985

**Pennsylvania High Speed Intercity  
Rail Passenger Commission**

**Chairman**

Rep. Richard A. Geist (R), Altoona

**Vice Chairman**

Sen. James E. Ross (D), Beaver

**Secretary**

Rep. Amos K. Hutchinson (D), Greensburg

Everett W. Croyle, United Transportation Union, Harrisburg

Robert A. Gleason, Gleason Agency, Inc., Johnstown

Sen. Robert C. Jubelirer (R), Altoona

Robert A. Patterson, Pennsylvania State University, State College

Kant Rao, Deputy Secretary for Budget, Harrisburg

Richard C. Sullivan, Conrail, Philadelphia

**Executive Director**

Robert J. Casey, Harrisburg

**Executive Editor**

Dan Cupper, Harrisburg

**General Engineering Consultant to the Commission**

Parsons Brinckerhoff/Gannett Fleming

**Subconsultants to Parsons Brinckerhoff/Gannett Fleming**

Dechert Price & Rhoads

Ernst & Whinney

Gibbs & Hill, Inc.

Prudential-Bache Securities

Sofrerail

Westmoreland Engineering Co., Inc.

D.S. Winokur Associates, Inc.

**Oversight Consultant to the Commission**

STV Engineers, Inc.,

with

R.L. Banks & Associates

Daniel, Mann, Johnson & Mendenhall

Rackoff Engineers

The preparation of this report, dated February 1985, has been financed in part through a grant from the U.S. Department of Transportation, Federal Railroad Administration, to the Pennsylvania High Speed Intercity Rail Passenger Commission.

This executive summary is based on methodology, data, and assumptions contained in the study working papers and reports. Included in the assumptions are projections, made as of November 1984, concerning future events and economic conditions that cannot be assured. Therefore, actual results achieved may vary from the projections.



## INTRODUCTION

A high-speed rail passenger system across Pennsylvania could not only offer rapid, all-weather travel between Philadelphia and Pittsburgh but also create tens of thousands of jobs, pump billions of dollars into the state economy, and spark countless opportunities for real estate development.

Such a super-railroad—able to move millions of riders a year from city center to city center in safety, style, and speed—also could boost state tax revenue by hundreds of millions of dollars and position Pennsylvania to export high-speed rail technology to other states.

In addition, such a network probably could generate enough revenue to pay its operating and maintenance costs, and perhaps make a contribution to the capital construction cost.

These are among the preliminary findings of a program begun in 1983 for the Pennsylvania High Speed Intercity Rail Passenger Commission by an engineering joint venture of Parsons Brinckerhoff Quade & Douglas, Inc., and Gannett Fleming Transportation Engineers, Inc.

Under most of the options studied, comfortable trains would zip along on approximately hourly schedules. The trains would ride new passenger-only trackage separate from existing freight tracks (but in many locations adjacent and parallel to them) and free from grade crossings.

By the year 2000, the study estimates, a high-speed rail system could carry 4 million to 12 million riders a year. The figure could run even higher if rail connections materialize at either end of the state—to Atlantic City, N.J., and to a proposed multistate Midwest high-speed network that has been envisioned to link Pittsburgh with Cleveland, Detroit, and Chicago.

Building the railroad, an 8- to 12-year program, could help stabilize the state's economy at a time when the national shift to a service society has forced many smokestack industries to close their plant gates.

Clearly, Pennsylvania stands at a crossroads of economic opportunity

with high-speed rail.

For travelers, this service could slice the nearly 7-hour, 352-mile passenger-train run from Philadelphia to Pittsburgh to as little as:

- 2½ hours (express service) for new magnetic levitation trains on special guideways, or
- 3¼ hours for advanced high-speed trains on steel wheels following a mostly new alignment, or
- 4 hours for a substantially improved steel-wheel system primarily following the existing right-of-way.

Such a system would give Pennsylvania a quality and frequency of service unknown in America but widely available in Japan and Europe, where clean trains safely and routinely whisk between major cities at speeds of between 125 mph and 168 mph. It also would help meet a growing demand for intercity transportation, which is expected to nearly double by the year 2000, according to a federal study.

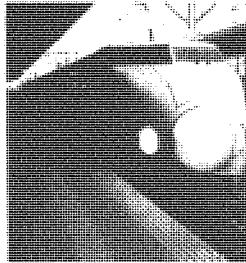
The main line envisioned by the Commission's study would connect with Amtrak's New York-Washington Northeast Corridor at 30th Street Station in Philadelphia. In Pittsburgh, the line could terminate either at Pennsylvania Station, as Amtrak trains now do, or at Station Square, the P&LE Terminal complex being redeveloped as a retail-hotel-restaurant center. Some of the route alignments studied closely follow the former Pennsylvania Railroad main line (today owned by Amtrak east of Harrisburg and by Conrail west of Harrisburg) for much of the distance, while others deviate widely from it. In all cases studied, however, trains would serve Paoli, Lancaster, Harrisburg, Altoona, Johnstown, and Greensburg. One route realignment proposal would add State College, home of Pennsylvania State University and a growing center for technology and research.

Highlights of other findings, which are covered elsewhere in this executive summary and in detail in the technical study itself, are listed below. Known as Phase 1, this part of the study laid a broad framework for more specific and intensive examination in Phase 2. Phase 2 will include a detailed market survey and

a right-of-way inventory. Phase 3 will focus on economic development that high-speed rail (HSR) could stimulate and on a financing package.

Among other findings, Phase 1 determined that:

- Pennsylvania residents and firms can capture approximately 70 percent of the construction costs (\$1.8 billion to build a 4-hour steel-rail system, up to \$10 billion to build a 2½-hour [trains making all stops] magnetic levitation [maglev] system).
- Pennsylvania residents and firms can capture an even greater share—approximately 80 percent—of operating expenditures, year after year.
- A "multiplier effect" of successive rounds of spending might triple the impact of initial expenditures.
- The dollar value of time savings alone could exceed the capital costs of an HSR system.
- State tax revenues would increase.
- New jobs directly created in Pennsylvania by HSR can boost the Commonwealth's employment growth rate by 20 to 68 percent during the construction period and by 23 to 35 percent when service begins, depending on which of the high-speed rail systems is chosen.
- Existing commuter systems, such as the Southeastern Pennsylvania Transportation Authority (SEPTA) and Port Authority Transit of Allegheny County (PAT) might gain riders by serving as feeder service to HSR.
- Pennsylvania firms could leap to the forefront of a new HSR industry in the United States, benefiting from the development of a trained labor force, a strengthened base for an HSR supply industry, and investments in the new technology drawn to Pennsylvania by an HSR system.
- The competitive position of Pennsylvania industries relative to those of other states could be enhanced by the better transportation HSR will provide. This definite transportation advantage and its intangible effect on the state's image could attract new businesses.

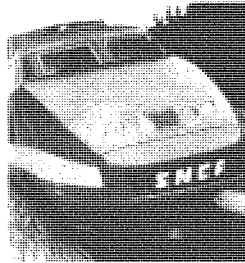


JNR Series 981 Bullet Train

- Tourism could benefit. As tourists are drawn from farther afield by the improved accessibility, this market improvement might induce the creation of new tourist attractions and better amenities, drawing still more tourists in a synergistic effect. HSR service itself could be a tourist attraction, particularly in the more advanced forms.

#### PENNSYLVANIA AND THE WORLD'S HIGH SPEED RAIL SYSTEMS

**State Perspective.** Pennsylvania has always been in the vanguard in the development of transportation, including canals, railroads, and the world's first limited-access super-highway, the Pennsylvania Turnpike, which is a financial success as well as an efficient transportation facility. Some of America's earlier fast trains were in Pennsylvania—in 1956 the Aerotrain's low center of gravity allowed it to traverse the largely twisting and mountainous Pennsylvania Railroad main line at speeds of well over 85 mph, reducing the travel time between Philadelphia and Pittsburgh to 6 hours—an hour less than the currently scheduled time. But in Pennsylvania as elsewhere in the country, the years from the 1950s on have brought comparative neglect of the rail system as national transportation policy—and heavy federal funding—gravitated toward an emphasis on highways and airports. To remedy the neglect of rail, boost the state's economy, and



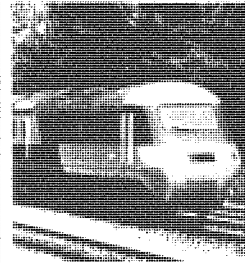
SNCF TGV Train

regain a leading role in transportation, the Pennsylvania General Assembly created the High Speed Intercity Rail Passenger Commission by Act 144 of 1981 "to investigate, study and make recommendations concerning the need for and establishment and operation of a high speed intercity rail passenger system in the Commonwealth."

**National Trends.** The need for HSR passenger service is dictated by transportation growth trends. The final report of the National Transportation Policy Study Commission (1979) estimated that, even if the population were to stay constant in the 25-year period from 1975 to 2000, the number of intercity person-trips could be expected to rise by some 88 percent, from more than 13.5 billion annually to nearly 25.5 billion. According to the study, this results from the following trends:

- Expansion of service industries and white-collar occupations will cause business travel to increase faster than general economic growth.
- Increased affluence and leisure time will stimulate pleasure travel.
- Changing age distributions mean that there will be more persons in high-travel-potential age groups.
- The trend toward fewer dependents will allow more time and disposable income for travel.
- The rising relative affluence of other countries will increase tourism to the United States.

The federal study took special note of the absence of an efficient travel



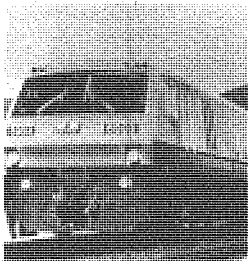
British Rail HST Train

mode for short-distance intercity markets—a niche HSR might fill:

Present intercity service offers limited speed and cost options. In short-range markets, there are no substantial high-speed options—air being relatively slow due to excessive access times, and the auto and bus being fixed at a maximum upper speed limit of 55 miles per hour. This market is often indicated as having potential for high-speed rail service; however, substantial capital investment is required. Where auto, bus and air speeds are often impaired by road and airway congestion, rail services may gain market share when rail speeds and service levels begin to compare favorably with the other modes.

**The World View.** Two basic systems were selected from world technologies as possible models for Pennsylvania:

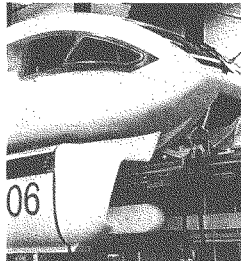
- Steel-wheel-on-steel-rail. These systems are currently running at speeds of 125 mph or more in France, Great Britain and Japan—hundreds of route-miles in each country. They are fast, comfortable, and—particularly those propelled by electric power—produce little wayside air pollution. For electric trains, combustion takes place in the power-generating plant, where it can be controlled, and fuel at the plant can be coal or hydropower instead of scarce oil. The initial Japanese high-speed line, known as the Shinkansen, has been running "Bullet Trains" since



VIA Rail LRC Train

1964—at a profit year after year. Tested at a maximum speed of 198 mph and operating at about 130 mph, it has sped along for more than 20 years without a single fatality or serious injury to passengers, making it the safest transportation system in history. The new French TGV (très grande vitesse or “very high speed”) trains run even faster—168 mph normal top speed; tested to as high as 236 mph—again, at a profit for the initial line. Since 1975, British Rail has operated “Inter-City 125” service with HST (High-Speed Train) diesel-powered equipment at 125 mph. In addition, British Rail is running an electric-powered train called APT (Advanced Passenger Train) with coaches that tilt, enabling them to round conventional curves faster than otherwise would be comfortable for passengers. Canada also has a tilt-body design, the LRC (Light, Rapid, Comfortable), in service and undergoing continuing development. Using AEM-7 electric locomotives with Swedish-licensed technology and Amfleet coaches, Amtrak’s Northeast Corridor Intercity service runs at a top speed of 120 mph on certain stretches.

- Maglev. In a magnetic levitation, or maglev, system, magnets on the train interact with conductors embedded in a special guideway, propelling the train forward and, as it gathers speed, lifting it up. The train floats from a fraction of an inch to a few inches above the guideway surface itself, avoiding contact noise, vibration, and fric-



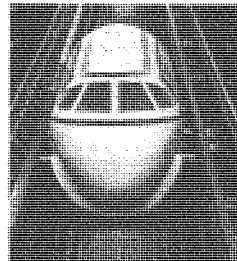
Transrapid 06 Maglev Test Train

tion. Experimental maglevs are now running in Japan and Germany at speeds as high as 250 mph, based on different approaches. They are termed “repulsion” and “attraction” maglevs respectively, after the differing ways in which each country uses magnets to provide levitation. An early Japanese maglev attained a world speed record of 321 mph. One maglev has entered low-speed regular service at the Birmingham Airport in England. For Pennsylvania, 250 mph seems a reasonable top practical speed—avoiding the worst aerodynamic drag and noise.

The Commission and eventually a broader group of Pennsylvania leaders will face one fundamental distinction between these two classes of HSR systems: maglev operates on a different principle from rail, requires its own guideways, and cannot be simply added on to an existing rail system. Steel-wheel-on-steel-rail technology, on the other hand, can be developed by stages, with advanced vehicles running at less than top speeds over ordinary tracks for a time, or a diesel system built first and electrified later.

#### ALTERNATIVES FOR PENNSYLVANIA

**Achieving Higher Speeds.** Travel times can be cut by using combinations of engineering techniques. Several alternative systems are described here, each using an integrated combination of track, align-



Penn State Maglev Test Car

ment, operations, and equipment improvements. Among track, alignment, and operations improvements considered in the study were:

- Upgrading track to higher Federal Railroad Administration (FRA) classification—may be a requirement for higher speed.
- Raising superelevation (banking curves more steeply)—an inexpensive way of obtaining higher speed curves if track can be “dedicated” to passenger service.
- “Designation” of track for passenger service—may avoid the expense of constructing additional trackage specifically designed and dedicated for passenger service.
- Curve straightening—may avoid the cost and impact of route realignment, with nearly the same improvement in speed capability.
- Route realignment—may be desirable in areas where existing route is circuitous or where sharp curves exist.
- New alignment—may be the only way to obtain desired shorter trip times.

Among equipment improvements considered in the study were various combinations of the following:

- Increased power density (horsepower per ton)—may provide improved performance at a reasonable cost.
- Running with increased cant deficiency (tilt-body vehicles)—may increase passenger comfort and raise speed on curves, thus significantly improving performance at a reasonable cost.
- Electrification—though costly be-

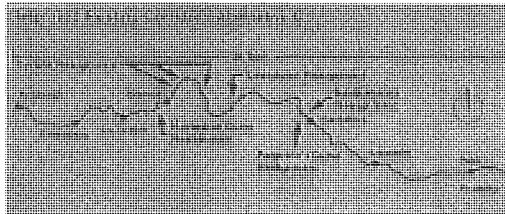
cause of the need for an overhead catenary, saves train weight and may be the best way to provide the desired performance.

- Advanced technology (maglev)—though costly and not yet proven in commercial operations, it is the only way to provide ground transportation times as low as 2¼ hours (express) between Philadelphia and Pittsburgh.

**Existing Service.** Today, Amtrak cross-state passenger trains (the Broadway Limited and the Pennsylvania) use Electro-Motive F40PH-type diesel locomotives to draw Amfleet and Heritage Fleet cars. The trip is slow, averaging 47 to 50 mph, mainly because of track and route bottlenecks and because of the mixture of freight and passenger trains on one of the highest tonnage railroads in the country. The 352-mile route has 40 grade crossings, 593 bridges, two tunnels, and 392 curves, or 1.1 per mile, a substantial proportion. With top speeds of 70 mph on the Conrail line west of Harrisburg and 90 mph on the Amtrak line east of Harrisburg, total trip time is a calculated 6½ hours, though currently scheduled with leeway at 6 hours 56 minutes. Amtrak service on the electrified Philadelphia-Harrisburg line is more frequent—nine trains a day each weekday—and runs at a slightly higher average speed—about 65 mph. These trains use Budd-built Metroliner coaches originally used in Northeast Corridor service.

The study focuses on three progressively faster—and costlier—systems, each of which uses a specific vehicle type and route alignment. For purposes of the study, these are Alternatives "C," "D," and "E." (Alternative "A" was existing or "baseline" service, used as a point of comparison only; and Alternative "B" embraced only minor improvements to existing service—it was dropped from further consideration because it fell too far short of the Commission's stated performance goals.)

**Cities to be Served.** In all alternatives, seven population centers would be served, as required in the Commission's original Request for Proposal: Lancaster, Harrisburg,

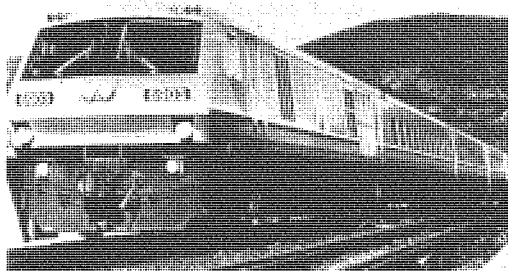


Altoona, Johnstown, and Greensburg, in addition to the terminal cities of Pittsburgh and Philadelphia. Service at Paoli was also examined to draw on the large suburban ridership base of the metropolitan Philadelphia area, including the new high-tech corridor that is developing along Route 202 near Paoli. Another growing high-tech area, Centre County, could be served by a routing through State College (studied under Alternative D, but also possible under C or E).

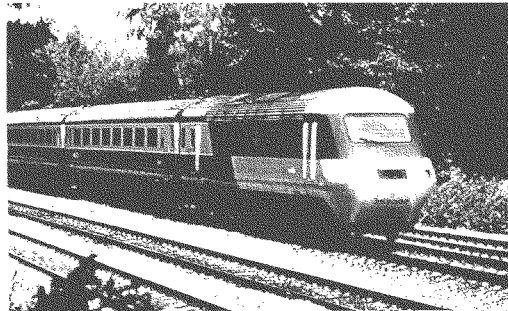
The details of providing commuter service and intermediate stops can be studied later, but it should be possible to operate these services in coordination with through trains.

**Alternative C—Improved Existing.** Alternative C is a big step up from the existing service, and could well serve as a transition to even higher-speed service later. It represents the best service that could be provided on essentially the existing right-of-way (or one parallel to it) with dedicated passenger tracks, limited curve improvements at many points, and route realignments at five current bottlenecks. Listed east to west, these realignments are:

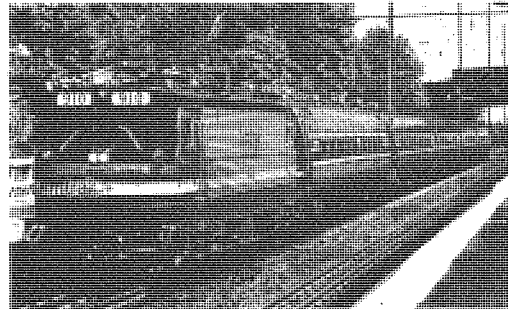
- Susquehanna River reroute: runs north from Rockville, roughly following Conrail's Harrisburg-Buffalo main line and crossing river to Duncannon (saving 9.0 minutes).
  - Ferguson's Curve east of Newport: straightens wide curve along the Juniata River (2.3 minutes).
  - Lewistown to west of McVeytown: follows base of Blue Mountain on straight alignment (12.3 minutes).
  - Tyrone: series of curve straightenings between Petersburg and Tyrone (15.3 minutes).
  - Horseshoe Curve: bypasses the historic engineering landmark on a high viaduct (6.3 minutes).
- High-speed locomotives and cars would be used, perhaps of tilt-body design; grade crossings and other obstacles eliminated where possible; and speed, comfort, and reliability much improved. Diesel or electric locomotives could be used (the electrified option was termed Alternative C—Electric); diesel offers freedom from the capital expense of electrification, but electric trains operating from wayside power offer quicker acceleration or higher top speed. Diesels might be either the Canadian LRC (a tilt-body train built to North



VIA Rail LRC Train (Canada)



British Rail HST Train



Amtrak AEM-7/Ambilet Train (United States)

American standards and used in Canada since 1982, desirable if substantial route curvature is present) or the lightweight but nontilting British HST. Several electric trainsets are candidates in Alternative C—Electric: the American AEM-7 locomotive with Ambilet cars, as used in current Metroliner service on the Northeast Corridor; an electric version of Canada's LRC now under development; the West German ET 402, the Italian ETR 401 (tilt-body); or the British APT (tilt-body). Top speeds in this improved existing system would be 110 to 120 mph—nearly as high as true HSR service—and the trains could sustain high speeds throughout more of the trip than at present for substantially improved typical trip times (estimated at 3 hours 58 minutes; or 3 hours 50 minutes if electrified—both times assume trains stop at all stations considered in the study). Many of the improvements envisioned in Alternative C can be seen as steps toward even higher-speed service, allowing a smooth transition and the early inauguration of a service much superior to the present standard.

**Alternative D—True High Speed Rail.** Alternative D represents the best service possible with advanced steel-wheel-on-steel-rail rolling stock and motive power, using essentially new right-of-way. It uses a new alignment and advanced HSR technology modeled after the French TGV or Japanese Bullet Train, but realistically adapted to Pennsylvania topography to avoid excessive construction through tunnels or on structures. Three trainsets are candidates:

- French TGV (currently operating to as high as 168 mph; the export version intended for the United States would use synchronous alternating-current traction motors in place of the direct-current motors used in France).
- Japanese Series 961 Bullet Train (currently operating at 130 mph and somewhat more powerful than others in the Bullet Train series).
- Proposed German Intercity Experimental (IC-E) train (expected to begin prototype testing in December 1985).

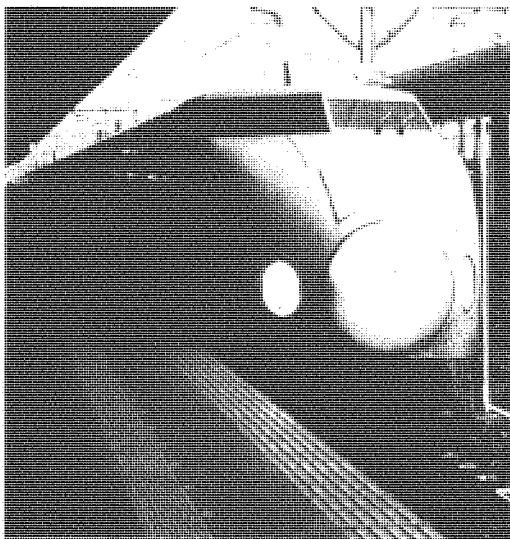
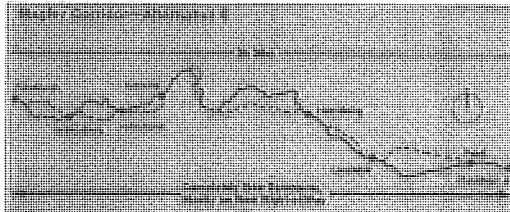
As originally conceived, Alterna-

tive D would not have followed the existing Amtrak/Conrail route as much as it does; an analysis of the marginal trip time savings, the high cost, and the large environmental impact of new alignments in urban areas, however, persuaded the study team to propose using the existing right-of-way between Philadelphia and Harrisburg, between Greensburg and Pittsburgh, and in the vicinity of passenger stations; elsewhere it would be new. Electrically powered trains would operate on new, passenger-dedicated trackage at a top speed of 160 mph (180 mph was also analyzed, but grade and curvature severely limit the marginal trip time savings). With six intermediate stops, the 314-mile route would take an estimated 3 hours 16 minutes.

**Alternative D—State College.** An alternative routing via State College was examined, the only realignment studied for market reasons rather than for trip-time improvement. Although studied as a variant of Alternative D, placing State College on an HSR corridor also could be done with Alternative C or E.

West of Harrisburg, the line would follow the Conrail main line as far as Millerstown, where it would diverge, tunneling through three mountains before emerging into the Nittany Valley. The route would pass south of State College and climb over Bald Eagle Mountain, joining the right-of-way of the former Conrail Bald Eagle Branch a few miles west of Port Matilda. From there, the alignment follows the branch until joining the main line at Tyrone.

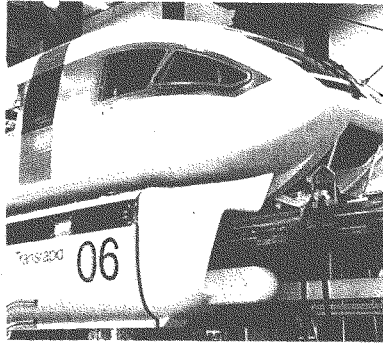
This realignment would add about 5 miles and 10 to 12 minutes to the running time estimated for Alternative D. The cost of routing Alternative D through State College is estimated at \$77 million above the base cost for Alternative D. If built as part of Alternative C, it would save about 7 minutes of running time. The cost of routing Alternative C through State College, while not estimated in Phase 1, would be substantial. For Alternative D, the additional market could boost ridership by as much as 650 to 1,690 passengers a day, or 237,250 to 616,850 riders annually.



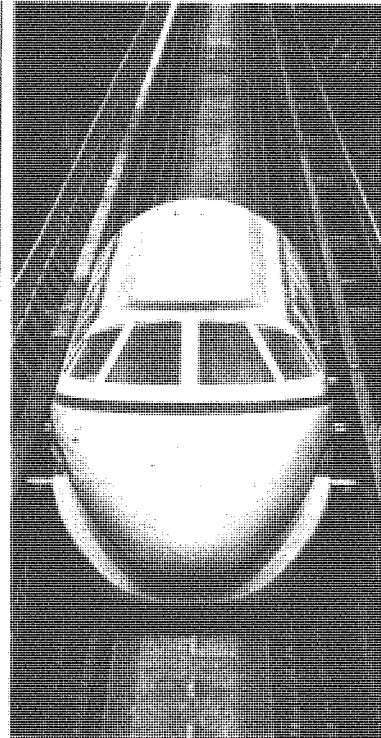
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SNCF TGV Train (France)



Transrapid 06 Maglev Test Train (Germany)



JNR MLU-001 Maglev Test Car (Japan)

**Alternative E—Magnetic Levitation.** Alternative E represents the best service possible with magnetic levitation, using a totally new right-of-way. This new very-high-speed system could be modeled after either of two experimental vehicles:

- German attraction maglev, using a T-shaped guideway
- Japanese repulsion maglev, using superconducting coils and a U-shaped guideway.

A new system of guideway would be built within a portion of the exist-

ing right-of-way between Philadelphia and Malvern, and on a new right-of-way from there west to Pittsburgh. The guideway would principally be double, but near stations it would return to the existing right-of-way and become single. A full double guideway would be impractical in narrow rights-of-way through cities. Elevating the guideway when crossing sensitive areas such as farmland would permit continued use of the surrounding land. Tunneling and earthwork can be

minimized because maglev can negotiate steeper grades than steel-wheel HSR systems (the study assumed use of 6 percent grades, though steeper grades are possible). Maglev acceleration and maximum speed are high enough that route length (313 miles) becomes a secondary issue, and straightness of primary concern. Speeds as high as 250 mph would be practical, providing an estimated trip time of 2 hours 36 minutes if all station stops are made.

Investment Component Summary				
Item	Cost	Alternative C	Alternative D	Alternative E
Construction				
Track				
New				
Existing				
Station				
Signal				
Other				
Equipment				
Train				
Station				
Signal				
Other				
Operating & Maintenance				
Personnel				
Energy				
Materials				
Other				
Contingency				
Total				

#### COST ESTIMATES

Cost estimates are shown in the table. For a system that would handle a base ridership demand (more conservative estimate), the target estimates range from \$1.8 billion for Alternative C to \$7.2 billion for D and \$10.0 billion for E.

#### BENEFITS

**Transportation Benefits.** HSR brings shorter trip times—as low as 2½ hours end-to-end for Alternative E (maglev). Riders also benefit from the greater choice of arrival and departure times and the generally better service than that available today. The better the service and the more advanced the HSR system, the more riders attracted: Alternative C is estimated to draw an annual base demand of 4 million passengers, Alternative E nearly 6 million.

Time savings are fundamental. Over the years, the dollar value of these time savings could equal the

Benefit Cost Estimate Summary				
Item	Alternative C	Alternative D	Alternative E	Base Case
Transportation Benefits	\$1.8	\$7.2	\$10.0	\$1.8
Time Savings	\$1.8	\$7.2	\$10.0	\$1.8
Operating & Maintenance	\$1.8	\$7.2	\$10.0	\$1.8
Construction	\$1.8	\$7.2	\$10.0	\$1.8
Equipment	\$1.8	\$7.2	\$10.0	\$1.8
Personnel	\$1.8	\$7.2	\$10.0	\$1.8
Energy	\$1.8	\$7.2	\$10.0	\$1.8
Materials	\$1.8	\$7.2	\$10.0	\$1.8
Other	\$1.8	\$7.2	\$10.0	\$1.8
Contingency	\$1.8	\$7.2	\$10.0	\$1.8
Total	\$1.8	\$7.2	\$10.0	\$1.8



Operating and Maintenance Costs Base Demand, 1983 Dollars in Millions				
Item	Alternative			
	C	C-Electric	D	E
Track/Structures				
Labor	\$ 15.94	\$ 15.84	\$ 19.78	\$ 21.97
Material	15.24	15.34	15.40	12.89
Electrical Maintenance				
Labor	--	3.86	6.60	33.77
Material	--	2.77	3.08	21.49
Vehicle Maintenance				
Labor	17.73	9.57	15.84	11.64
Material	8.82	4.68	9.77	8.61
Station Operation & Maintenance				
Labor	5.82	5.02	6.92	9.21
Material	1.00	1.00	1.20	1.50
Signals & Communications				
Labor	7.84	7.04	6.60	(incl. in Elect.)
Material	2.77	2.77	3.70	
Train Operations				
Vehicle Crew	9.81	9.12	9.55	9.69
Power	8.17	10.99	11.41	18.74
Central Operations & Administration				
Operations Schedule	1.55	1.55	1.55	1.55
Administration	3.30	3.30	4.44	5.44
Material & Services	6.09	5.93	7.81	7.91
Insurance	1.71	1.71	1.97	2.43
Security	1.44	1.44	1.44	1.44
<b>TOTAL</b>	<b>\$107.69</b>	<b>\$104.77</b>	<b>\$124.19</b>	<b>\$166.19</b>

## Selected Train Parameters

Parameter	Alternative			
	C	C-Electric	D	E
Equipment Type	HSY	Lightweight LRC	AMT/ Amfleet Electric LRC	TGV 961 TR-88
Proposed Base Case Train Config	1-8-3	1-4-1	1-5	1-5-1
Train Weight (Tons)				
Fully Loaded *	393	580	430	900
Horsepower	4,500	7,000	7,800	13,000
HP/Ton	11.4	12.3	18.3	14.5
Seating Capacity *	328	460	480	524
Assumes Maximum Ex (in)	4.5	0	4.5	4.5

\* Weights of all foreign equipment include structural modifications thought to be required to meet U.S. requirements (based on IPRFP).

\* Seating capacity based on Amfleet seating density for all but the TR-88 (Maglev) vehicle.

system's capital costs—in as little as 4.6 years for the lowest-cost Alternative C or 12.4 years for Alternative D and maglev (Alternative E), which save more time for more people, but also cost more.

Less favorable assumptions for ridership demand and for the value of time require longer payback periods, from 36.4 years (C) to 85.7 years (E), but in all cases, the value of time savings is a benefit to riders that could compensate public support.

**Economic Benefits.** Beyond these transportation benefits, HSR would boost employment, personal income, the gross state product, and state tax revenue.

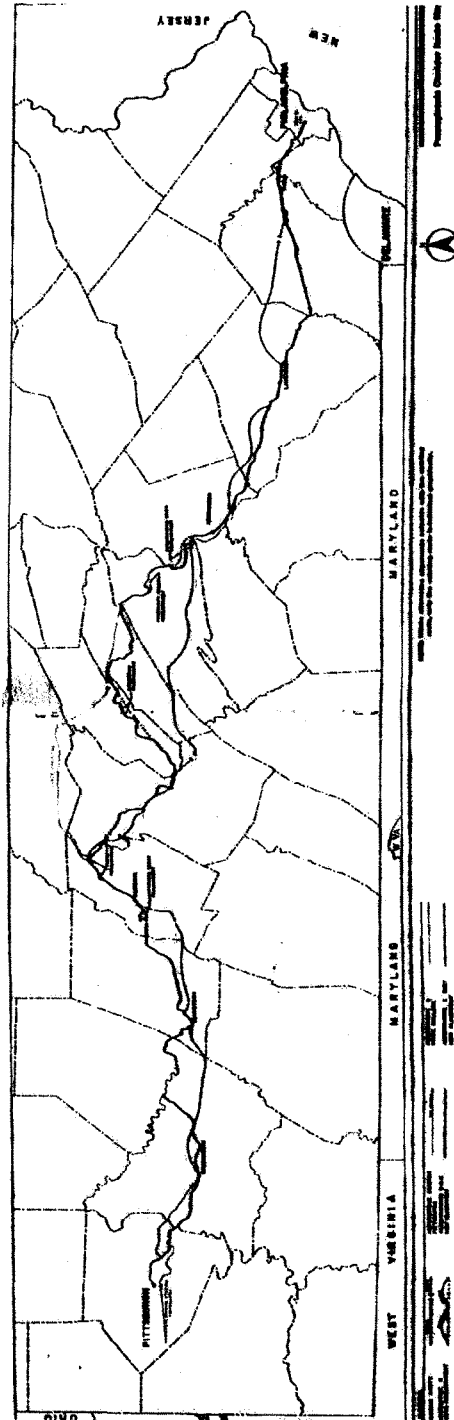
Unemployment is a key issue for Pennsylvania, as noted in the State Planning Board's 1980 *Choices for Pennsylvanians*:

In Pennsylvania, the lack of sufficient jobs is one of the most severe problems facing us today. During the last 10 years, the Commonwealth has lost 190,300 manufacturing jobs. . . . Hardest hit have been the cities and towns that once relied on factory and service workers for support of their economic base. Fewer people with fewer dollars has meant less business for the retail establishments and less municipal revenue for the communities of Pennsylvania.

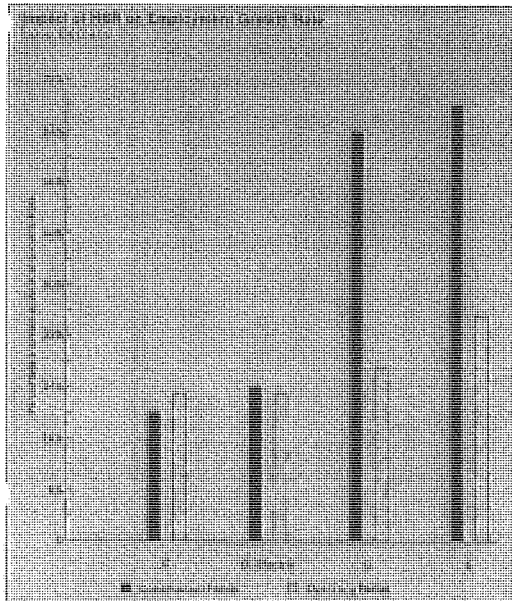
These negative trends have continued since the 1980 report. HSR could provide:

- From 55,000 to 292,000 person-years of employment (for Alternatives C and E, respectively), or 7,000 to 24,000 jobs on average for each year of the construction period.
- New permanent employment once operation begins—8,300 jobs under Alternative C by the year 2000; 12,500 jobs under Alternative E.
- Increases in the employment growth rate of from 23 to 68 percent during construction years and from 23 to 35 percent when service begins.

Naturally, the more money spent on the system, the greater the returns, particularly during the construction period (8, 10, or 12 years for Alternatives C, D, and E, respec-







**Annual Ridership Scenarios**  
(Total Ridership in Millions)

	Low Demand	High Demand
<b>Alternative A</b>		
Philadelphia Region	1,181	11,100
Atlantic City Region	11	11
<b>Total</b>	1,192	11,111
<b>Alternative B</b>		
Philadelphia Region	1,181	11,100
Atlantic City Region	11	11
<b>Total</b>	1,192	11,111
<b>Alternative C</b>		
Philadelphia Region	1,181	11,100
Atlantic City Region	11	11
<b>Total</b>	1,192	11,111

tively). Most of the money spent would stay in Pennsylvania—70 percent during construction and a continuing 80 percent after operation begins.

All alternatives provide the state government with additional financial resources that could assist in financing HSR, stemming solely from the existing tax structure:

- \$12 million to \$41 million per year during construction
- \$13 million to \$19 million per year during service, base ridership demand—or \$18 million to \$26 million, high ridership demand.

These additional tax revenues represent 1 percent or less of total current state government revenues, but boost the projected annual growth rate by as much as 31 percent. The additions could finance part of the HSR system's construction or operation, should the Commonwealth decide to make a financial commitment to the system. Costs to state government may decline modestly by the reduction in expenditures for new construction and for maintenance in other modes of transportation, and by the reduction in unemployment and associated public costs.

Urban economic development could be enhanced and downtown areas revitalized. New employment and greater personal income could be felt all along the route. How each city handles the fostering of development can make for differences among the cities. So can sheer size. The large urban areas have more heavy construction and railroad supply industries than the smaller ones and can capture larger percentages of Pennsylvania's share of construction costs: the Philadelphia Standard Metropolitan Statistical Area can capture 22 percent, Pittsburgh (including Greensburg) 28 percent. During both construction and operation, the larger general economies can also absorb more of the multiplier effect as new income is spent in the community. Proportionally, however, the smaller urban areas—Altoona, Harrisburg, Johnstown, and Lancaster—can look for equal or greater benefits relative to their smaller overall economies. Each city's success will depend on its own development policies and basic

economic vitality, but HSR can become a strategic spur to growth. Summing up, economic impacts to Pennsylvania of an HSR corridor could include:

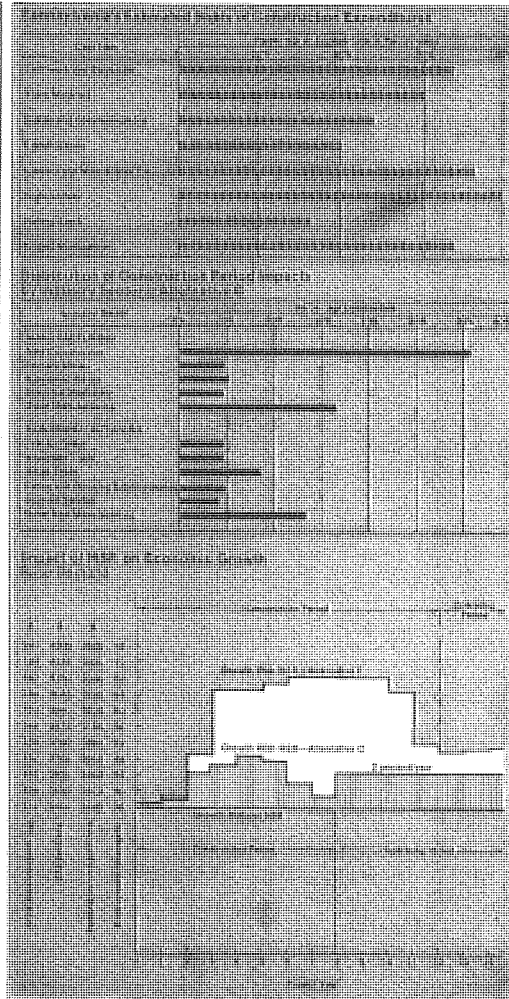
- \$145 million to \$415 million of new, direct expenditures annually during construction
- \$115 million to \$175 million annually during operation
- Total economic impacts over the 8- to 12-year construction period, including the multiplier effects of successive rounds of spending (approximately three times the size of the direct effects):
  - Between \$3.9 billion and \$22.7 billion in total expenditures for goods and services
  - Between \$1.2 billion and \$6.1 billion in gross state product
  - Between \$1.0 billion and \$5.2 billion in total personal income
  - Between 58,000 and 292,000 person-years of employment.

#### Relative Benefits of Alternatives.

All the alternatives offer benefits, and in general, the greater the costs, the greater the benefits. Economic benefits correspond closely to costs, but transportation benefits begin to give less return per dollar at the highest costs. This behavior is typical of transportation projects: each additional minute of time savings costs more to achieve than the previous minute.

For producing transportation benefits, Alternatives D and E generate more total benefits than Alternative C, but at more than proportionately greater cost. For economic benefits, however, all are approximately equally efficient in generating benefits from costs.

**Return on Investment.** HSR could pay for its own operation. Sources of revenue include both fares and "other revenues"—associated business enterprises such as package service; baggage and mail fees; charter services to special events; auxiliary revenue from station concessions and advertising; and the rental of space in stations. From these are subtracted the costs of travel agent commissions, food-service losses on the trains, and advertising. Calculated this way, revenues for the first year of opera-



Statewide Construction Period Impacts					
Economic Indicator	Alternative				C
	A	B	D	E	
Capital Expenditures	\$ 1,114	\$ 1,104	\$ 1,103	\$ 1,104	
Number of Construction Years	4	4	4	4	
Peak Year Construction	278	278	278	278	
Percentage of Peak Year	11%	11%	11%	11%	
Employment Impact					
Current Employment	18,584	21,432	21,583	207,527	
Total Employment	48,789	81,147	83,586	241,550	
Percent Increase in Pennsylvania	5.0%	2.8%	3.8%	6.9%	
Personal Income					
Current Income	\$ 4,400	\$ 4,400	\$ 4,400	\$ 4,400	
Total Income	\$ 1,120	\$ 1,120	\$ 1,120	\$ 1,120	
Percent Increase in Pennsylvania	1%	0%	1.0%	1.0%	
State Tax Revenue, Millions	\$ 1,120	\$ 1,120	\$ 1,120	\$ 1,120	
Percent Increase in Pennsylvania	1%	0%	1.0%	1.0%	
State Tax Revenue, Millions	\$ 1,120	\$ 1,120	\$ 1,120	\$ 1,120	
Percent Increase in Pennsylvania	1%	0%	1.0%	1.0%	

Statewide Operating Period Impacts					
Base Statistics, Year 2100					
Economic Indicator	Alternative				C
	A	B	D	E	
Annual Total Expenditures	\$ 1.62	\$ 1.62	\$ 1.62	\$ 1.62	
Annual Total Expenditures	5.3	5.3	5.3	5.3	
Employment Impact					
Current Employment	2,490	2,490	2,490	2,490	
Total Employment	5,150	5,150	5,150	5,150	
Percent Increase in Pennsylvania	21%	21%	21%	21%	
Personal Income					
Current Income	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	
Total Income	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	
Percent Increase in Pennsylvania	0%	0%	0%	0%	
State Tax Revenue, Millions	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	
Percent Increase in Pennsylvania	0%	0%	0%	0%	
State Tax Revenue, Millions	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	
Percent Increase in Pennsylvania	0%	0%	0%	0%	

tion are expected to fall within the following ranges:

- Alternative C—\$113.92 million to \$289.73 million
- Alternative D—\$141.77 million to \$322.16 million (or from \$153.68 million to \$347.18 million if State College is added)
- Alternative E—\$181.92 million to \$389.39 million

A creative and flexible combination of public and private support may be workable for HSR. Each stage in the project has peculiar features affecting financing and taxes; the project might evolve in stages from public to public-private ownership and control, drawing on the special tax and financing advantages of each. Private investors will require a direct return on investment commensurate with the perceived risk in developing the system. At this stage in the study it appears that all the alternatives would return enough revenue to cover operating costs, with Alternative C providing the highest internal rate of return on investment. If capital costs must also be covered from revenues alone, private investors might need added incentives, particularly for the more expensive and higher-risk alternatives. Such alternatives, with their greater total public benefits but only somewhat greater cash revenues, are more suitable to a public financing viewpoint. When such benefits as employment and supplementary economic development are considered, a strong justification for public financial support of an HSR project could be made.

No new transportation system of this magnitude can be developed entirely risk-free. Some uncertainties must be associated with any piece of new construction on new right-of-way—which is extensive in Alternatives D and E. No system was considered in this study, however, that had not proven its technological feasibility. Alternative C uses essentially time-tested technology, except for the carbody tilt system. Alternative D also has a significant service record, but it has a greater implementation risk than C because it requires more new construction and greater care in building and maintaining track to close tolerances. Maglev has been proved as a

functioning principle, but not in high-speed revenue service.

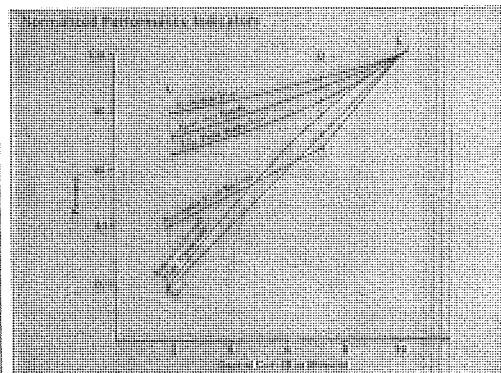
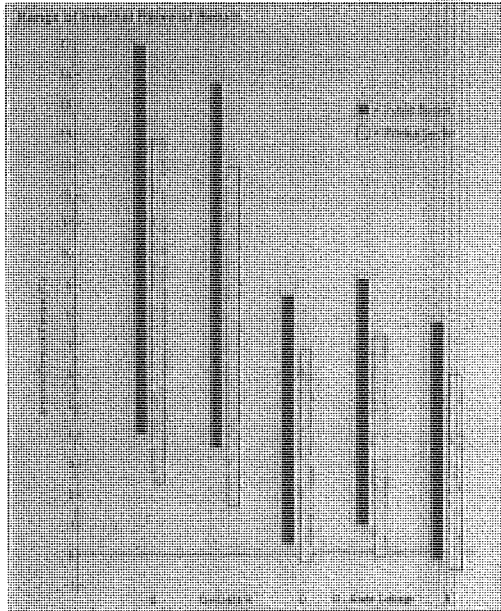
Particularly for maglev, private investors will require a higher rate of return than for a risk-free investment. At present, it appears that only Alternative C surpasses the risk-free rate of 9 percent, and then only from ridership above the base-demand conditions. It therefore seems likely that public policy, rather than investment profitability, will decide the level of support for HSR. As the study continues, public policymakers must eventually decide whether benefits themselves—time savings, greater economic impact—should be maximized, as in Alternatives D and E, or the efficiency of achieving those benefits (Alternative C).

The alternatives so far considered are only first approaches. Later stages of the study will modify them, perhaps gaining important financial advantages. It is likely that vendors of equipment would offer support through loan guarantees as a way of penetrating a new market and gaining a showcase for their equipment. Adding State College to the route could raise ridership; innovative financing can also be explored, including such approaches as Florida's plan for financing transportation by allowing private investors to share in the profits of land development spurred by the new travel corridor.

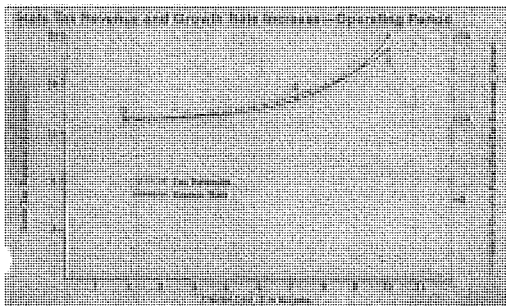
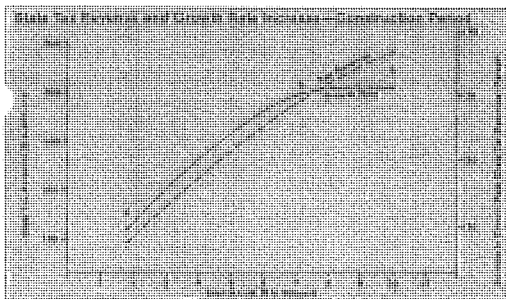
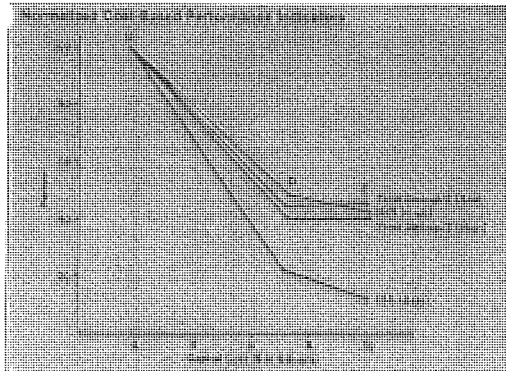
#### ENVIRONMENTAL IMPACT

HSR will be a good neighbor. Rail in general requires only a thin strip of land to provide efficient transportation on a large scale. In virtually all categories—land required, energy consumption, noise, vibration, air pollution, and aesthetic intrusion—railroads are recognized as potentially less damaging to the environment than freeways or airports.

**Land Use.** For the Pennsylvania HSR line, major wetlands and state parks seem, in this preliminary overview, little affected by the planned route, except that Alternative E crosses one corner of Marsh Creek State Park in Chester County. Much of any new right-of-way will necessarily cross tracts of farm and forest that will need sensitive treatment.







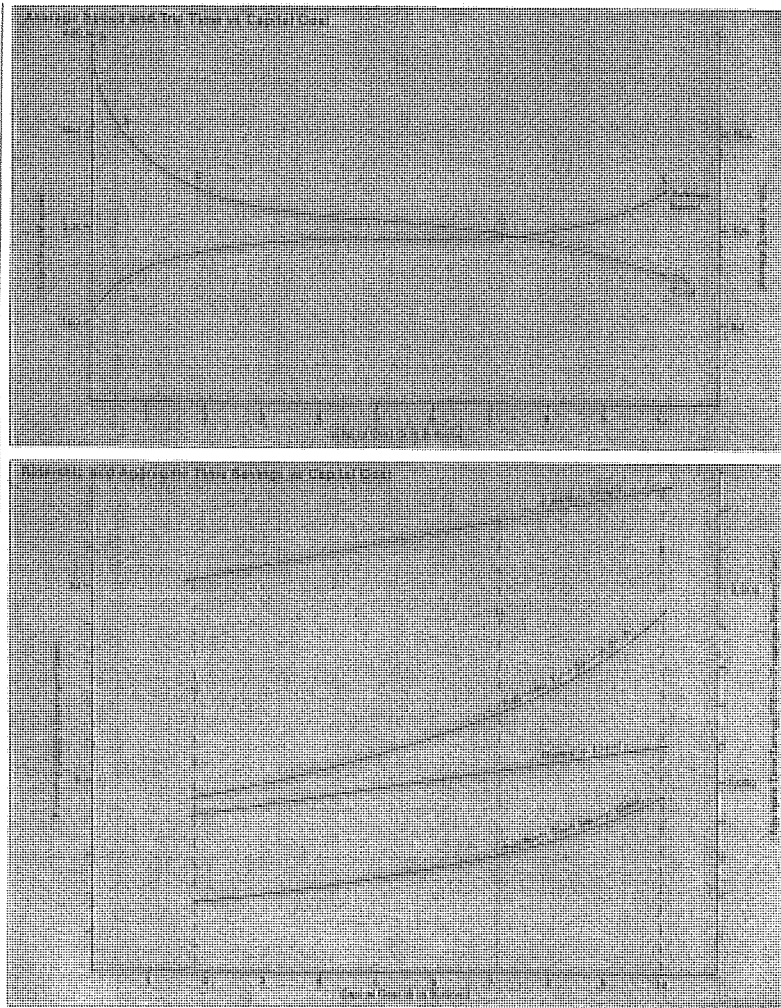
perhaps including elevated sections to allow agriculture on prime lands to continue uninterrupted. Historical sites near or within the rail system itself—such as Rockville Bridge, Horseshoe Curve, and certain stations, will require particular care.

**Noise.** Steel-wheel HSR trains are free from much of the noise of ordinary rail because of smoother track and electric propulsion. Maglev creates no wheel/track noise or vibration once it attains its lift-off speed. At high speed, all designs produce aerodynamic sounds that sometimes require noise control, as has been routinely provided in Japan wherever the Shinkansen traverses residential areas.

**Health and Safety.** The maglev alternative will need special study to determine whether magnetic fields pose any problems to riders or to people living nearby—if so, shielding can be provided. Both the German and Japanese test programs are investigating this issue. As for safety, well-maintained and -operated rail systems have excellent safety records (a tenth the fatality rate of automobiles), and Japan's Shinkansen shows that high speed rail can be astoundingly safe—20 years without a fatality or serious injury to passengers.

**Environmental Program.** While the environmental impact of any HSR alternative is not expected to be severe, Alternative C, which requires building only 50 miles of new route, would likely cause less environmental disruption than D (154 miles of new route) or E (238 miles). Any project stretching from one end of the state to the other will have substantial effects and will require early incorporation of mitigation measures into the project design. Similar problems at several sites can be handled collectively without expensive site-by-site solutions. In this process, all appropriate agencies and groups would be consulted. Developing a single programmatic environmental impact statement, supplemented by site studies as required, can simplify the gaining of environmental approvals, as compared to attempting numerous studies of individual





spects of the system. Financing the project without federal support would mean that for the most part, only state agencies would have to approve the project, which could save approval time.

#### JAPAN AND FRANCE— TWO SUCCESS STORIES

Japan and France both run HSR lines at a profit. Both have extended their systems to new lines without any guarantee of achieving the financial successes of the first—France in pursuit of a public policy that insists on a vigorous passenger rail network, Japan as part of a decentralization policy to check the steady gravitation of population to a few main cities. Japan initiated its first line in the densely populated Tokyo-Osaka corridor (2,600 persons per square mile), where rail demand already exceeded the capacity of the existing system, but then extended it to much less densely populated corridors. France succeeded without such a dense population in the Paris-Lyon corridor (500 persons per square mile), and is now extending service to even less dense corridors.

The HSR concept has succeeded: the initial line of the Japanese system has operated profitably and fatality-free for more than 20 years. Pennsylvania can learn from these systems that success is possible, but must develop its own specific formula to achieve this goal.

#### ACTION

The fundamental questions raised at this stage of the study and for which guidance of the Commission is required to undertake the next phase are:

- Which technology should be given further study for potential application in Pennsylvania—the various steel-wheel high speed rail technologies, or magnetic levitation?
- If steel-wheel technology is selected for further study, should the focus be on essentially existing rail rights-of-way (Alternative C and C—Electric) or on a largely new right-of-way such as Alternative D?

Whatever decisions are made will affect the Commonwealth for many generations to come, as have pre-

vious choices such as the decision to build the Pennsylvania Turnpike—a real success story.

Table 1. Summary of High-Speed Rail Alternatives			
Alternative	Length (miles)	Estimated Cost (\$ billions)	Estimated Annual Revenue (\$ millions)
Alternative A (Existing Right-of-Way)	111.0	2.2	100.0
Alternative B (New Right-of-Way)	111.0	3.5	100.0
Alternative C (New Right-of-Way)	111.0	3.5	100.0
Alternative D (New Right-of-Way)	111.0	3.5	100.0
Alternative E (New Right-of-Way)	111.0	3.5	100.0
Alternative F (New Right-of-Way)	111.0	3.5	100.0
Alternative G (New Right-of-Way)	111.0	3.5	100.0
Alternative H (New Right-of-Way)	111.0	3.5	100.0
Alternative I (New Right-of-Way)	111.0	3.5	100.0
Alternative J (New Right-of-Way)	111.0	3.5	100.0
Alternative K (New Right-of-Way)	111.0	3.5	100.0
Alternative L (New Right-of-Way)	111.0	3.5	100.0
Alternative M (New Right-of-Way)	111.0	3.5	100.0
Alternative N (New Right-of-Way)	111.0	3.5	100.0
Alternative O (New Right-of-Way)	111.0	3.5	100.0
Alternative P (New Right-of-Way)	111.0	3.5	100.0
Alternative Q (New Right-of-Way)	111.0	3.5	100.0
Alternative R (New Right-of-Way)	111.0	3.5	100.0
Alternative S (New Right-of-Way)	111.0	3.5	100.0
Alternative T (New Right-of-Way)	111.0	3.5	100.0
Alternative U (New Right-of-Way)	111.0	3.5	100.0
Alternative V (New Right-of-Way)	111.0	3.5	100.0
Alternative W (New Right-of-Way)	111.0	3.5	100.0
Alternative X (New Right-of-Way)	111.0	3.5	100.0
Alternative Y (New Right-of-Way)	111.0	3.5	100.0
Alternative Z (New Right-of-Way)	111.0	3.5	100.0

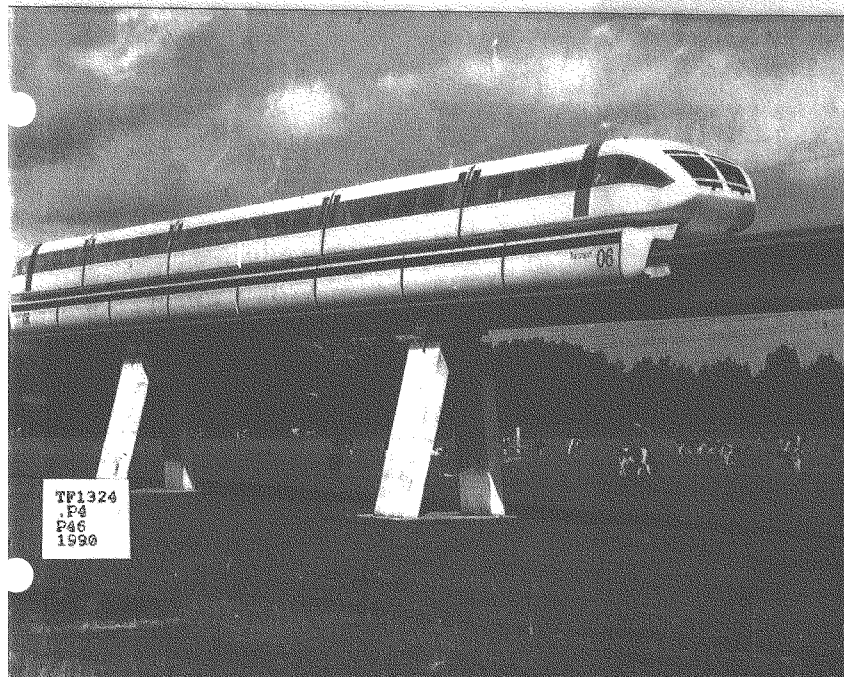
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Attachment B

***Pennsylvania High Speed  
Intercity Rail Passenger  
Commission Final Report***

**Executive Summary**



**Pennsylvania High Speed Intercity  
Rail Passenger Commission**

(Established 1983, Expired Dec. 31, 1987)

**Chairman**

Representative Richard A. Geist (R) Altoona

**Vice Chairman**

Senator J. Barry Stout (D) Bentleyville

**Secretary**

Representative Amos K. Hutchinson (D) Greensburg

Senator J. Doyle Corman (R) Bellefonte  
Everett W. Croyle, United Transportation Union, Harrisburg  
Robert A. Gleason, Secretary of the Commonwealth, Harrisburg  
Robert A. Patterson, Pennsylvania State University, State College  
Kant Rao, Deputy Secretary for Budget, Harrisburg  
Richard C. Sullivan, Consolidated Rail Corporation (Conrail), Philadelphia

**Executive Director**

Robert J. Casey

**Executive Editor**

Dan Cupper

**Assistant Director**

Eric Bugaile

**Executive Secretary**

Dottie Ketner

**General Engineering Consultant to the Commission**

Parsons Brinckerhoff/Gannett Fleming

with

John Bachman — vehicle technology  
The Budd Co. — magnetic levitation technology  
Dechert, Price & Rhoads — legal and institutional issues,  
ownership, operations and local coordination  
Ernst & Whinney — economic impact policy and investment and financing  
Gibbs & Hill, Inc. — power system, signal and communications systems  
John T. Harding — magnetic levitation technology  
Opinion Research Corp. — market demand surveys  
Prudential-Bache Securities — public and private financing options  
Sofrera — vehicle technology  
Westmoreland Engineering Co., Inc. — right-of-way and bridges  
D.S. Winokur Associates — alignment graphics

**Oversight Consultant to the Commission**

STV Engineers, Inc.

with

R.L. Banks & Associates  
Daniel, Mann, Johnson & Mendenhall

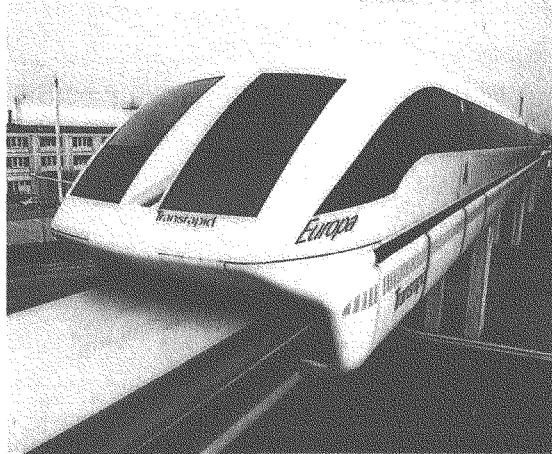
Published by the High Speed  
Rail Foundation  
Hon. Richard A. Geist, Chairman  
Don Dear, President  
5500 Corporate Drive, Suite 310  
Pittsburgh, PA 15237

This report was prepared by the High Speed Rail Foundation to summarize and update the Final Report of the Pennsylvania High Speed Intercity Rail Passenger Commission. It was edited by Robert J. Casey and reviewed by the following persons: Dan Cupper, who was executive editor of the commission, William Dickhart, consultant to Transrapid International, Hon. Rick Geist, who was chairman, Dottie Ketner, former executive secretary of the Commission, Paul H. Reistrup, who was a member of the Oversight Consultant team, Richard C. Sullivan, who was a member of the Commission, and Joseph Vranich, a consultant who was not part of the Commission or study.

The publication of this report was financed by a grant from Transrapid International, Munich, Federal Republic of Germany. The complete Final Report was published by the Pennsylvania Department of Commerce under a grant from the Federal Railroad Administration. Persons who wish to have a copy of the full report should contact Pennsylvania Secretary of Commerce Raymond R. Christman, Forum Building, Harrisburg, Pennsylvania 17120, telephone (717) 787-3003.

Published in January, 1990

The Pennsylvania State  
University Libraries



EUROPA, the latest version of the Transrapid International maglev, was introduced in 1989.

## RECOMMENDATIONS

1. Magnetic levitation should be the technology of choice for a cross-Pennsylvania high-speed rail system. Advanced steel-wheel technology should be considered an alternative strategy.
2. The General Assembly should authorize the first steps toward implementation of high-speed rail. (A sample of the consultants' suggested legislative language is included in the final report, but not in this summary.)
3. The Commonwealth should authorize negotiations with the West German consortium, Transrapid International, concerning financial assistance, to determine the nature and extent of that financing and under what conditions it may be extended. This investigation should determine what the actual cost of the construction likely will be; what

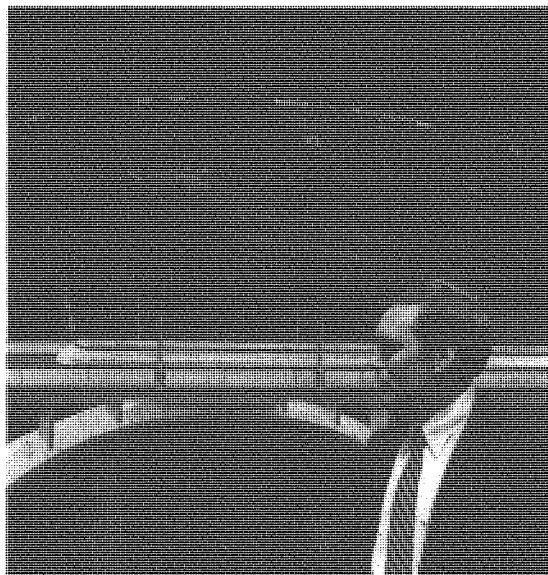
proportion of that cost likely will be covered, or whether all of it will be covered, by the proposed offshore financial assistance; and what sources are available to make up the difference, if any.

4. At the same time, issues that could not be covered in this commission's final phase of feasibility work should be addressed. Specifically, these include a more cost-effective alignment; a financing plan, including determination of details of the Transrapid proposal; an engineering analysis of the Transrapid proposal; and a final economic impact assessment.

5. If financial assistance fails to materialize to permit implementation of state-of-the-art technology, the Commonwealth should consider alternative strategies, such as building the system in stages or accepting a lower-cost (with correspondingly lower performance and less dramatic economic benefit) technology.\*

\* While not a formal recommendation of the full commission, this opinion is held by a substantial minority of its members, and it reflects one implementation strategy proposed by the general engineering

consultant. Although the commission consistently has favored higher technologies, it has never ruled out pursuit of cost-effective alternatives.



Rep. Geist at Pennsylvania's famous Horseshoe Curve, with an artist's rendition of a high speed train.

## CHAIRMAN'S REPORT

By Representative Rick Geist

Magnetic levitation, the first choice of the Pennsylvania High Speed Intercity Rail Passenger Commission, is "flying without wings."

In the 1950s, the Interstate Highway System was in the center of all transportation planning. The following decade brought the building of airports to a fine art. During the 1970s, subways and local transportation systems began to get the spotlight of public attention.

Now, with the population in urban corridors booming, with increasing air and highway gridlock and environmental problems, and with safety problems in both modes, many states are considering creation of high speed rail systems. These range from upgraded Amtrak service, tilting trains and ones similar to the Japanese Bullet train and the French TGV all the way to 300 mph magnetic levitation systems.

The Pennsylvania High Speed Intercity

Rail Passenger Commission in one of its first official acts voted for magnetic levitation (maglev) as its first choice.

Magnetic levitation vehicles are lifted and propelled along and above a guideway by a wave of magnetic energy. They actually are flying, but because they surround the guideway, they cannot "derail." On December 21, 1979, an unmanned Japanese maglev vehicle reached 321 mph, and on January 22, 1988, a German maglev with passengers on board reached 256 mph. This was the same vehicle that members of the Pennsylvania commission rode two years earlier. High speed rail systems, including maglev, are the safest form of transportation in the world; they are smooth, comfortable, reliable and fast. And speed sells.

The Japanese were the first to prove this. When they built the Shinkansen (New Trunk Line) in 1964, it was the equivalent of the Pennsylvania Turnpike's pioneering highway in its time. With trains traveling at 130 mph, the Japanese "Bullet" proved to be popular and profitable.

Other countries entered the high speed

rail field and by 1984, the French TGV (Very High Speed) train was traveling between Paris and Lyons at 170 mph.

Today, new speed records are being established almost every month. But there is another "race." It is a competition among a dozen American states to determine which will be first to have a high speed rail system. The winner undoubtedly will reap many economic benefits, but the others will also gain great economic rewards.

This Executive Summary and the full Final Report of the Commission show without a doubt that a high speed rail system would provide vast economic benefits to our state, as well as a fantastic new transportation system to bring together our two largest cities, the state capital and a number of other cities.

This report is based on a \$4 million four-year effort by the Commission and its study team. It is probably the finest and most accurate such study ever accomplished in the United States.

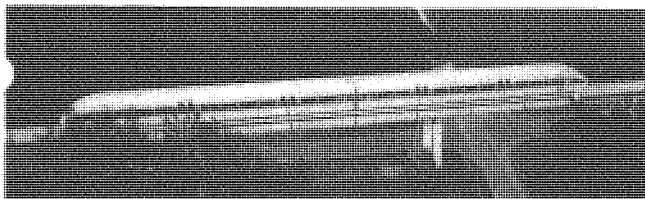
The Pennsylvania ridership study, a major and central part of the project, has been called "the most rigorous and accurate ridership projection so far" by Planning Magazine.

The ridership study was performed by the general contractor, Parsons Brinckerhoff Gannett Fleming. It is interesting to note that the Parsons firm also made the study for the Pennsylvania Turnpike that predicted 1.3 million vehicles the first year. The actual count for that first year was 2.4 million vehicles. We believe the firm was just so conservative in their projection for Pennsylvania High Speed Rail.

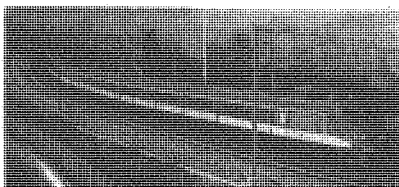
The most pressing need at this time is for a state-authorized ridership study which will update and relate the Commission's 1986 Ridership Survey to the magnetic levitation proposal of Transrapid International.

The Commonwealth should act now to form a public-private partnership authorized to work with Transrapid International (or other consortium) in order to assure a 21st Century cross-state transportation system. It will benefit the environment, the economy, travel safety, tourism and it will combat gridlock.

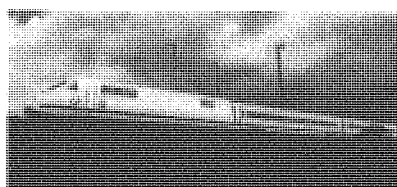
*Richard A. Geist*



The Transrapid maglev crosses a highway intersection.



Two French TGV trains pass on the Paris-Lyons route. Newer versions of the TGV travel at 166 mph.



The German ICE train, a product of the German National Railway, operates between Hannover and Wurzberg. It has reached 252 mph in trial runs.

## EXECUTIVE SUMMARY

The Pennsylvania High Speed Intercity Rail Passenger Commission was created by Act 144 of 1981 to study the prospects for bringing high-speed rail service to the Philadelphia-Harrisburg-Pittsburgh corridor, and intermediate stations. The commission was given responsibility to assess the need and demand for high-speed rail passenger service; construction costs and available technologies; possible location and extent of specific routes to be served; economic impacts of construction and operation; financing options; and local issues.

Parsons Brinckerhoff Quade & Douglas of Philadelphia and New York City and Gannett Fleming Transportation Engineers of Camp Hill, Pa., formed a joint venture (Parsons Brinckerhoff/Gannett Fleming, or PBGF) to conduct the feasibility study. STV Engineers of Pottstown, Pa., and New York City served as oversight consultant to cross-check PBGF's assumptions and analyses. Nearly \$4.2 million in state, federal and West German grant funding was spent on the study. This report summarizes the work of PBGF and STV as well as the contributions of French and West German engineers and suppliers.

## DEFINITION OF HIGH-SPEED RAIL

High speed rail passenger service as discussed in the study means:

- Passenger trains operating at between

- 125 mph and 250 mph or more.
- Right-of-way dedicated exclusively to high-speed passenger service.
- The right-of-way would be free of highway grade crossings.
- Frequent departures — approximately hourly throughout the day.
- Business-class on-board services and amenities.
- Clean, appealing, centrally located stations with adequate parking.
- A commitment to reliability and performance.

For travelers, high-speed rail offers safety, speed, convenience, frequent departures, reliability and all-weather service. For the state's economy, high speed rail offers construction employment, expansion of the tax base, real-estate development near stations, creation of a new industry and support for the state's mature railroad-supply industry. In addition, high speed rail brings broader benefits, such as environmental protection, sound land-use policies, improved mobility, and a measurable boost in the state's image as a place in which to live and do business. Some of the benefits high speed rail can bring to Pennsylvania are:

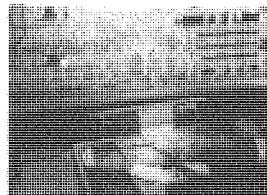
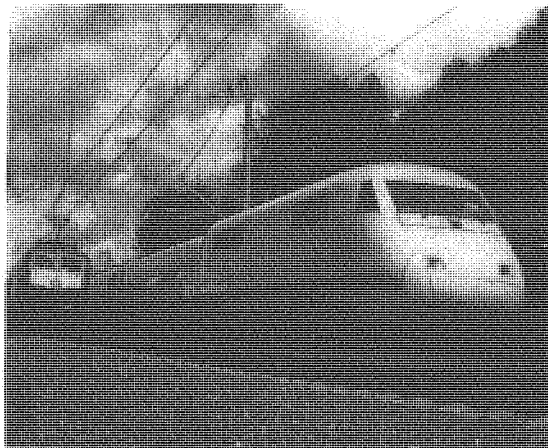
- Cross-state travel time of two to three hours.
- As many as 25,000 jobs during construction, and half that many in the long run.
- Revitalization of downtown areas.
- Creation of a state-of-the-art, environmentally sound mode of transportation.

## HIGH-SPEED RAIL FOR PENNSYLVANIA

Pennsylvania is a candidate for high-speed rail because it has two large cities about 300 miles apart, the larger of which is anchored into the heavily traveled Northeast Corridor, in between are a capital city and several significant smaller cities. The corridor length is ideal for high-speed rail. High-speed rail can successfully compete on a cost and time basis. The commission's ridership demand studies show that a passenger market exists to support high-speed rail. Several proposed routes were examined; all would service the following intermediate stations: Great Valley/Paoli, Lancaster, Harrisburg, State College and Lewisburg, Altoona, Johnstown and Greensburg. The eastern terminus would be at Amtrak's 30th Street Station in Philadelphia, which offers connections to Amtrak's Northeast Corridor and new Atlantic City service, and local suburban service, including trains to Philadelphia International Airport. The western terminus would be a new station at Pittsburgh's Station Square, connecting with local transit systems.

High-speed rail can overcome the weather-related difficulties of traveling over the Allegheny Mountains in winter. Further, it offers a way for travel to expand, which is not possible at traffic-clogged airports in Pittsburgh and Philadelphia. Federal studies show that demand for transportation is increasing, while the





**SAFETY:** High speed rail, in more than 25 years of operation, is the only transportation mode with a clean safety record, i.e., no passengers injured, no passengers killed. At the heart of the safety system is the computer automatic train control.

The German ICE passing an older electrified train. It is scheduled to go into full operation in 1991.

options for meeting that demand are growing increasingly restricted. Automobile fuel is readily available at a moderate price, but disruptions in Mideast supplies could change overnight. High-speed rail would help preserve mobility.

#### FOREIGN INVESTMENT POTENTIAL

During the course of the feasibility study, high-speed technology suppliers, particularly the West German magnetic levitation consortium Transrapid International, became so sure of the market for passenger travel in Pennsylvania that they made overtures regarding foreign financing for a system here. Leadership and a political consensus are needed to pursue this and other possible avenues of funding. Such a consensus is succeeding in other states; California-Nevada, Florida, Ohio and Texas are moving ahead with plans for high-speed rail systems.

#### WHAT THIS REPORT DOES NOT COVER

The feasibility study was nearly completed when the staff was terminated by the governor's financial aide four months prior to the "sunset" date. This curtailed the work. Many of the findings are favorable to high-speed rail. However, particularly on the issues of financing and optimum alignment, the study was incomplete, and additional essential work was left undone. A fair reading of the proposal's ultimate feasibility cannot be gained until those issues are resolved.

Among the tasks remaining are a final assessment of economic impact; a detailed financing plan; an engineering plan and computer runs to verify projections for a modest-performance alternative (Option 3) suggested by a financial consultant; revisions to right-of-way alignment to reflect cost reductions and improvements; an independent engineering assessment of the proposed Transrapid International plan for building and helping to finance a magnetic levitation line between Harrisburg and Pittsburgh; and determination of the nature of Transrapid's offer to assist in procuring financing.

#### FINDINGS

The Commission finds that:

1. High speed rail technology is available today.
2. A sufficient market exists in east-west travel to warrant further pursuit of high speed rail for Pennsylvania.
3. High speed rail will introduce beneficial short- and long-term economic effects to the Commonwealth.
4. The greatest such effect would be on new and developmental business, the construction industry and rejuvenation of railroad-related industry.
5. The greatest benefits would come from the most innovative system, i.e., magnetic levitation, closely followed by a high-

performance steel-wheel system such as the French TGV or West German ICE.

6. A modest upgrading of Amtrak service would offer significant travel-time improvements and may be least expensive, but it provides the least economic benefit among options studied.

7. Under the conditions existent in 1987, the project would require substantial initial investment, with the long-term benefits directly proportional to the size of the initial investment.

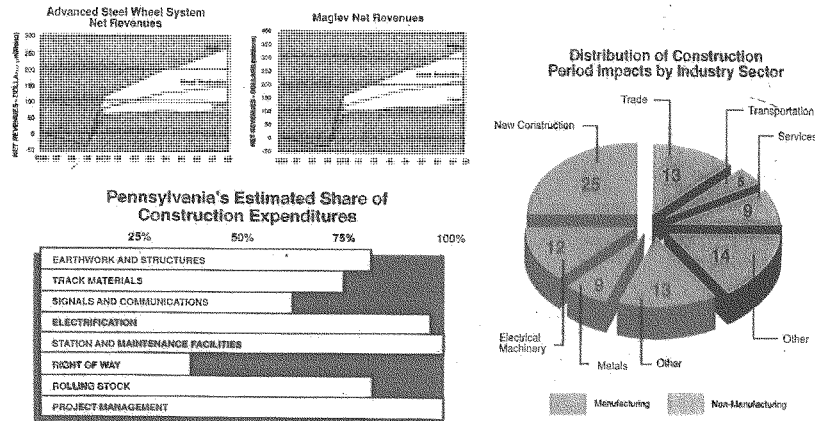
8. Both West German and French suppliers have offered to help secure offshore financial assistance — grants and/or loans — to construct their high speed rail systems in Pennsylvania.

9. With such offshore help, the best-case scenarios (steel-wheel system at 180 mph or maglev at 250 mph) may be financially feasible now, based on the record of public and private financing of high-speed rail worldwide.

Editor's Note: The passage of federal legislation in late 1988 authorizes high speed rail tax-free bonding authority.

#### TECHNOLOGY AND OPERATIONS

This study considered high-speed trains that are operating in daily commercial service, as well as experimental test designs. The choice of technology will govern the quality of service, capital cost, the extent of the Commonwealth's



financial support required and the relative risk and payback. It also will determine how much economic development occurs. The faster the trains, the greater the patronage, and the greater the impact on the state's economy.

#### The High-Speed Rail System Concept

The high-speed rail operating concept envisions a complete service to the traveler. Ample parking, access to public transportation, checked baggage, seat reservations, snack and beverage service, hourly departures. Depending on technology, the cross-state trip time could take from about two hours to 3 hours 43 minutes, with improved ride quality, compared with seven hours today. Passenger-train-only trackage enhances safety, speed and on-time reliability. As in France and Japan, this approach eliminates dangerous highway grade crossings, and eliminates dispatching interference with slow freight trains and start-and-stop commuter trains. This makes track maintenance easier and provides a safety margin by reducing the chance for collisions or derailments. It also allows steeper grades, reducing the need for costly tunnel excavation. Indeed, the Transrapid International proposal has no tunnels at all.

#### Steel-Wheel-on-Steel-Rail Technology

The French TGV (tres grande vitesse, or very great speed) fleet is the world leader in existing commercial technology. Since

1983, 87 electrified trains have operated between Paris and Lyons at 168 mph. The system yields a 17 percent return on equity after debt service. A fleet of second-generation TGV's will run at 186.4 mph on a new route from Paris to the west of France and north to Brussels and the English Channel Tunnel.

Under construction is a fleet of similar West German ICE (Inter-City Express) trains. A prototype has been tested at 252 mph and the German railroad has placed an order for production (41 trainsets of two locomotives and 11 cars) to service new high-speed routes at 155 mph.

The Japanese Shinkansen, or Bullet Train, is the world's first true high-speed rail system, having gone into operation on October 1, 1964, at a commercial speed of 130 mph; some routes now operate at 150 mph. The fleet has carried almost 3 billion passengers without a single fatality or injury.

Other high-speed electric train types planned for 140 mph operation or more are two Italian designs (ETR 450 and ETR 500) and the British "Electra". Trains operating or planned to operate at 125 mph include the British diesel Inter-City 125, the Spanish Talgo, a pendular "passive" tilting-coach system; Amtrak's AEM-7 locomotive-hauled Metroliner in the Northeast Corridor; and the Swedish X2, an "active" tilting-body train.

#### Banking Mechanisms

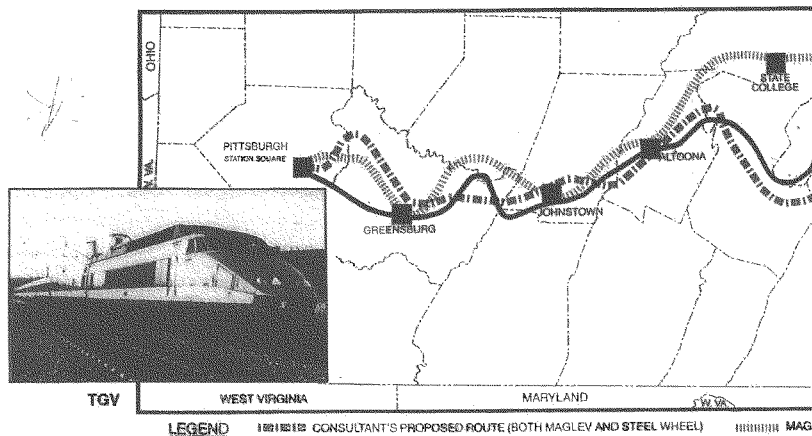
Several of these systems use tilting-body

coaches, in which the cars are mechanically banked through curves, reducing the discomforting effect of centrifugal force on passengers. Thus, roughly one-third higher speeds can be maintained through curves without costly track realignment. Reliability has been erratic for "active" banking systems, in which motors tilt the car bodies. The Spanish Talgo system uses gravity to achieve a "passive" tilting effect, which has been in use in Spain and on international routes for nearly 20 years.

#### Magnetic Levitation Technology

This technology uses no wheels or rails, but a concrete or steel guideway, above which the vehicle is magnetically suspended and centered, and along which it is propelled by a wave of magnetic energy. With no wheel-to-rail contact, the "maglev" vehicle actually flies along the guideway, so there is potential for greater speeds — 250 to 300 mph. No maglevs are operating in revenue service, but tests in West Germany and Japan have yielded performances at more than 300 mph. And the implementation of a first maglev line in Germany has been recommended to the Government by the Parliament (alternatively Hamburg - Hanover or Essen - Bonn).

At the 20-mile Transrapid International test track at Ennsland, West Germany, a two-car TR-03 vehicle has tested at 266 mph. This system uses a T-shaped guideway around which a part of the vehicle wraps,



eliminating the possibility of derailment. Electromagnets energized in the lower portion of the wraparound segment give the train its levitation by pulling up toward the magnetor mounted on the underside of the guideway. Additional magnets provide lateral guidance, or centering. A long-stator electric motor, with windings mounted on both sides of the guideway, reacts with electromagnets mounted beneath the main body of the vehicle. The rapid changing of polarities induces a pushing and pulling force, creating propulsion. Japanese Railways has tested the MLU-001 magnetic vehicle at 250 mph on a 4.2-mile track at Miyazaki, Japan. (An unmanned vehicle achieved 321 mph in 1979). This system uses a U-shaped guideway; the vehicle is lifted from the bottom of the guideway and repelled from its sides by the use of electromagnets. Forward motion is generated in the same manner as with the attractive system. Other vehicles, such as the Japan Air Lines HSST-02, have operated reliably in low-speed shuttle service, and have been tested at 191 mph.

#### Applicability to Pennsylvania

Most of the technologies listed are suitable for use in the Philadelphia-Harrisburg-Pittsburgh corridor. All maglev systems would require construction of a new guideway for the entire length of the route.

#### Benefits of Maglev

- Greater economic impact than steel-

wheel system, more jobs during construction; heavier passenger usage upon completion.

- Establishment of state-of-the-art transportation in Pennsylvania and the United States, and establishment of an entirely new technology as a new industry in Pennsylvania.
- Would allow export of specialized maglev technology to other states, creating more jobs and economic growth.
- Higher train speeds (250-300 mph rather than 150-180 mph) which would induce additional ridership.
- Potentially lower operating and maintenance cost than steel-wheel-on-steel-rail designs.
- The alignment and the construction of the guideway can more exactly adapt to the terrain compared with steel wheel.
- Environmentally superior to highways as a means of handling transportation growth in Pennsylvania.
- The innovative concept could attract new-technology financing.
- The Transrapid International group has offered financing for this option.

#### Disadvantages of Maglev

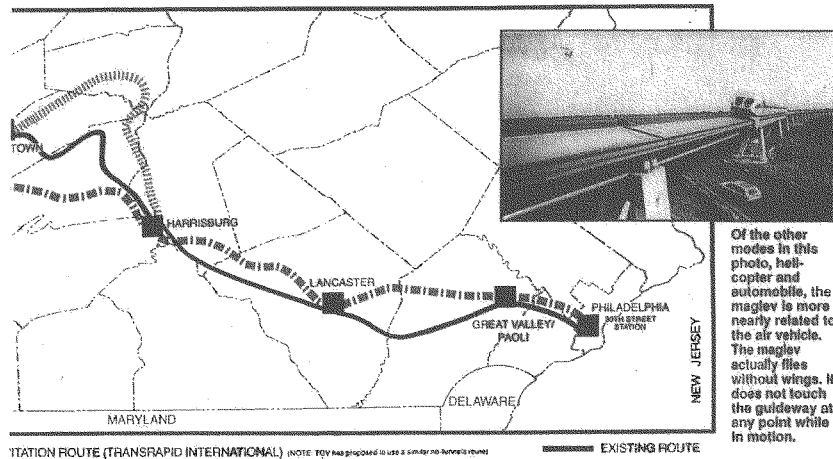
- Operation under Pennsylvania weather conditions not yet tested.

- No revenue service system experience.

- Neighboring states and Northeast Corridor not considering maglev as an alternative; thus, through service is precluded on trips such as Pittsburgh-New York or Harrisburg-Atlantic City, NJ.
- Risks associated with new technology may pose financing problems in the traditional marketplace.

#### Benefits of Steel-Wheel

- Broad-based proven service experience of steel-wheel on steel-rail mode reduces implementation risk and financing risk.
- Would allow export of high-speed technology to other states, creating more jobs and heightening economic impact in Pennsylvania.
- Supports state's existing railroad manufacturing and supply industry.
- Compatible with existing Northeast rail system; allows through service to New York, Washington, Atlantic City; also compatible with high-speed rail plans of Ohio, New York, and other states.
- Makes maximum use of existing rail rights-of-way in Pennsylvania; service could begin as an upgrading of conventional service now offered between Philadelphia and Harrisburg.
- Environmentally superior to highways as



a means of handling transportation growth in Pennsylvania.

Potential to achieve full electrification, full separation of freight and passenger services, full elimination of grade crossings.

#### Disadvantages of Steel-Wheel

- Some of investment may be lost if system subsequently is upgraded to maglev.
- Overall economic impact likely not as great as with maglev.
- Unlikely to match maglev in speed.
- Prospects less certain for establishing state-of-the-art American high-speed rail industry in Pennsylvania.

#### OPTIONS FOR PENNSYLVANIA

From technical, financial and operating standpoints, three types of systems were studied as candidates for implementation in Pennsylvania. Based on the consultants' work in Phase 1 and Phase 2 of the feasibility study, the commission voted to pursue the most technologically advanced systems – a 250 mph maglev system and a 180 mph high-performance steel-wheel system similar to the French TGV or West German ICE.

##### Option 1: Maglev Service

The commission's initial maglev investigation produced a cost estimate of

\$10 billion for a double-guideway system. At a top speed of 250 mph, this system would have allowed cross-state trip times of about two hours. It would attract the most passengers and create the greatest economic impact. The high cost estimate and difficulty of financing almost immediately ruled out this approach, even though maglev proponents claimed that the engineers' estimates were far too conservative (high), and that realistic costs based upon actual construction experience should be far lower. Methods of economizing on the initial capital cost estimates were unable to be pursued due to the abrupt termination of funding.

As a result, the West German maglev consortium Transrapid International proposed an incremental, staged plan, starting with partial maglev service and expanding its scope after gaining operating experience and achieving a financial performance level. Because of funding limitations, the commission's consultants were unable to provide an independent assessment of this proposal. The Transrapid proposal would implement a \$3 billion, 250 mph maglev system between Harrisburg and Pittsburgh, with initial upgrading of steel-wheel service between Philadelphia and Harrisburg. This plan contains a single-guideway track with two 25-mile passing double tracks and no tunnels. Transrapid officials further have stated that they would assist in procuring offshore public and/or private financing to build such a system in Pennsylvania. Running time for the

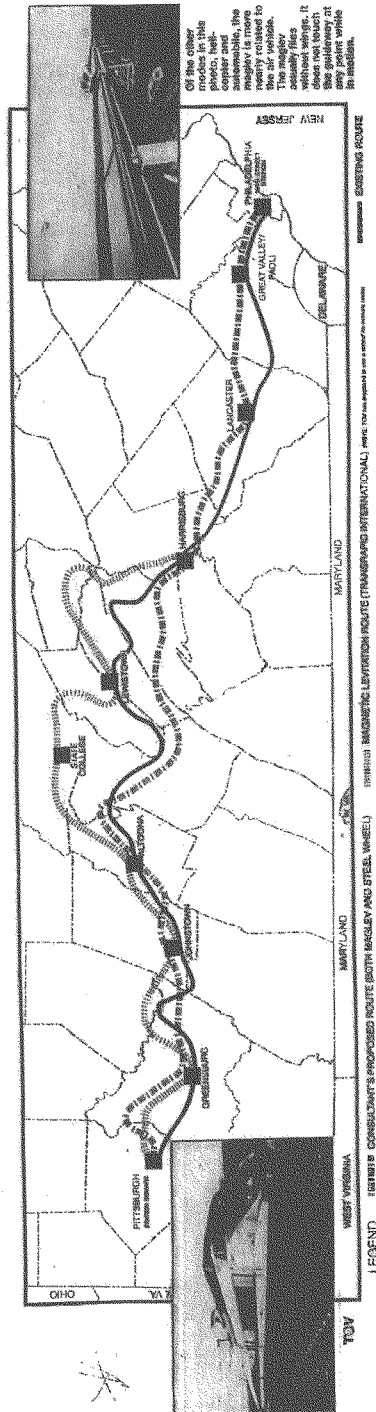
Harrisburg-Pittsburgh maglev section would be 1 hour 29 minutes, making five stops.

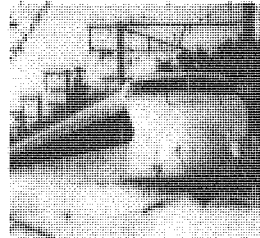
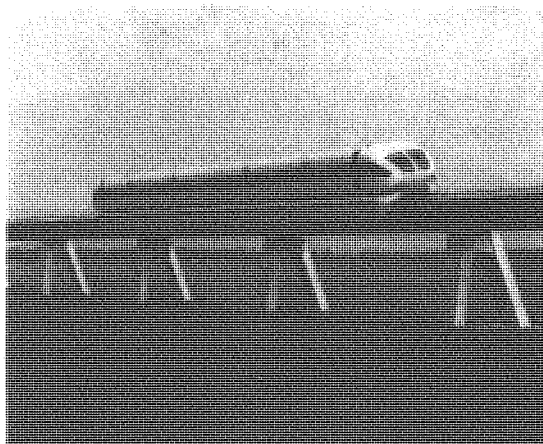
The commission's consultants estimated costs, revenues, performance standards and ridership based on full use of each technology from Philadelphia to Pittsburgh. However, both the commission's engineering consultants and engineers representing maglev and high-speed steel-wheel systems have suggested a staged approach, blending travel on old and new while new construction is completed. This approach offers an immediate improvement to existing service, over what is now the slowest segment, while containing a state-of-the-art component as well. A disadvantage is that it requires passengers to make a cross-platform transfer at Harrisburg until the entire cross-state system is built.

Cost of the incremental system would begin with the Transrapid estimate of \$3 billion, plus the cost of upgrading steel-wheel service between Philadelphia and Harrisburg, which must be investigated.

##### Option 2: High-Speed Steel-Wheel Service

This service proposal resembles the French TGV operation, with trains running at 160-185 mph and taking about 2 hours 41 minutes to make the cross-state run. The commission consultant's initial work produced a capital cost estimate of \$7 billion. This initial Phase 1 steel-wheel cost estimate has been called unrealistic in





The world's first high speed train, the Japanese Shinkansen or "Bullet Train," started operation 25 years ago (August 25, 1964). It has a perfect safety record and is a major financial success.

The Transrapid guideway is banked at curves, for passenger comfort.

that it was based on alignment assumptions that used moderate grade-climbing ability and involved extensive tunneling. It has been criticized as conservative (too high) by suppliers, who have a first-hand acquaintance with actual costs of construction. In addition, the estimate has been called extremely conservative — perhaps 25 or 30 percent higher than it need be — by the commission's oversight consultants, who suggest that the capital cost ought to be closer to \$5 billion. The TGV Company has offered to provide train-performance data, as well as assistance on costs and revenues, and sources of financing.

Representatives of the French rolling-stock manufacturers stated that they are prepared to make a proposal for such service, and stand ready to assist in procuring financing much in the same manner as the West German consortium.

#### Option 3: Moderate-Speed Steel-Wheel Service

A modest high speed rail steel-wheel-on-steel-rail electrified system could be built for \$2.55 billion. Operating at 125 mph with 150 mph running on some stretches, this system could cut the seven-hour Philadelphia-Pittsburgh travel time to 3 hours 43 minutes. A low-cost alignment design would provide passenger-dedicated track in the existing Amtrak-Conrail corridor with only 50 miles of realignment into new right-of-way. This plan would create a 340-mile route that

would enjoy the advantage of a lower capital cost and a much shorter design and construction period. Cash inflow, as a result, would begin in a much shorter time. While not as dramatic as the first two options, this concept would roughly halve the current Philadelphia-Pittsburgh rail travel time of seven hours.

The commission did not have the opportunity to have its engineering consultants thoroughly examine this proposal. The option poses safety concerns, especially with so much of its track location adjacent to existing freight tracks. For a relatively modest cost, it would produce immediate improvements, while allowing for higher performance standards by future straightening of alignment. This approach is not unlike that taken in improving the Pennsylvania Turnpike. However, this option lacks the economic-development potential of the faster systems. Another long-term advantage is that the operating margin would exceed the debt service requirement in the year 2006, the estimated 13th year of operation. Cumulative positive cash flow after debt service would be \$14 billion by the year 2027, when the bonds would be retired.

#### ECONOMIC DEVELOPMENT

High-speed rail would be a catalyst for economic growth — growth that would help the state overcome years of declining investments, jobs, and population; and growth that would help reduce

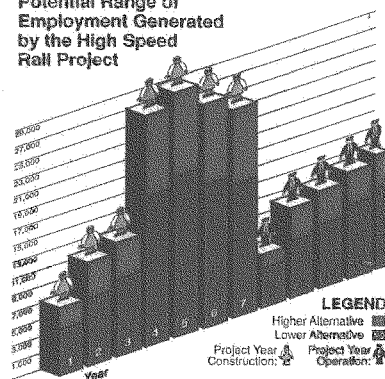
unemployment to a more desirable level, and provide substantial tax income for the Commonwealth.

#### Construction Benefits

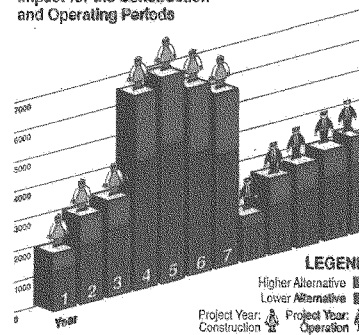
At least two-thirds of the expenditures for construction can be gained by Pennsylvania firms. Direct expenditures would stimulate further economic activity through the multiplier effect. For a \$2.55 billion steel-wheel system (Option 3), the result is a \$6 billion increase in total expenditures during the six-year construction period. For the high-speed steel-wheel system, Option 2, the \$7 billion capital expenditure brings an estimated \$16 billion in total construction. The maglev system, Option 1, produces \$22 billion in construction-period benefits in return for the \$10 billion capital cost estimate.

New expenditures mean new construction jobs — as many as 25,000 annually for maglev, or Option 1; 22,000 annually for Option 2; and 13,000 annually for Option 3. This will raise personal income by at least \$1.39 billion during construction or \$5.34 billion total over the operating life, for the most modest system. Advanced technologies produce \$8 billion in personal income (Option 2), or \$9.4 billion for Option 1. State government revenues would increase by \$492 million (Option 3) to \$755 million (Option 2) to \$882 million (Option 1) over the construction and operating life of the system. These revenues would be derived through increased income, sales and other tax receipts.

**Potential Range of Employment Generated by the High Speed Rail Project**



**Typical Distribution of Urban Area Employment Impact for the Construction and Operating Periods**



Because of the role railroading has played in the state's economy, Pennsylvania already has dozens of railroad-supply firms that manufacture everything from track spikes to locomotives. Roadbuilding contractors could benefit from contracts for right-of-way grading and bridge and tunnel construction.

#### Operations Benefits

It would cost \$98 million annually to operate and maintain a system under the least advanced approach, Option 3. The cost is estimated to be \$105 million for Option 2 and \$104 million for Option 1, maglev. Some 85 percent of these expenditures would benefit Pennsylvania firms and labor. The result, accounting for the multiplier effect, would be some \$460 million annually, under the best case, in new expenditures after operations begin.

These expenditures translate into:

- A total, in direct and indirect employment, of 7,600 to 12,500 jobs.
- Annual personal income of \$160 million to \$205 million.
- State tax revenues of \$15 million to \$19 million annually.

#### Downtown Development

High-speed rail can revitalize downtown areas by stimulating the development of real estate near stations. Construction of

retail, hotel, restaurant and office buildings will accompany the introduction of modern, efficient transportation in the downtowns of cities served. This phenomenon already can be observed in Lyons, France, adjacent to the high-speed TGV station there, and is a major component of the Florida high-speed rail system proposal. Harnessing the rising value of real estate is one way to help pay for high-speed rail capital costs.

#### Structural Benefits

High-speed rail can enhance the ability of a state or region to compete with others for new investment and economic activity. Feasibility studies leading to implementation in other states are taking this into account: Florida (Miami-Orlando-Tampa), Ohio (Cleveland-Columbus-Cincinnati), Texas (Dallas-Houston), Nevada/California (Las Vegas-Los Angeles) and Michigan, Indiana and Illinois (Chicago-Detroit). Regardless of where the first system in America is built, high-speed rail will be a multi-billion-dollar industry. The states that are first to create such a system will be in the best position to export their goods, services and expertise to others.

#### Travel and Tourism

In France, it is estimated that 20 percent of the travel on the TGV is induced travel, or travel that would not occur were it not for high-speed rail. Such a system could

improve access to the recreational areas of Central Pennsylvania, Pittsburgh's sporting events, and the historic sites of Philadelphia. Further, it would foster trade, communication and cultural links between Philadelphia, with its Northeast Corridor orientation and financial centers, and Pittsburgh, with its status as one of the largest corporate headquarters centers in America.

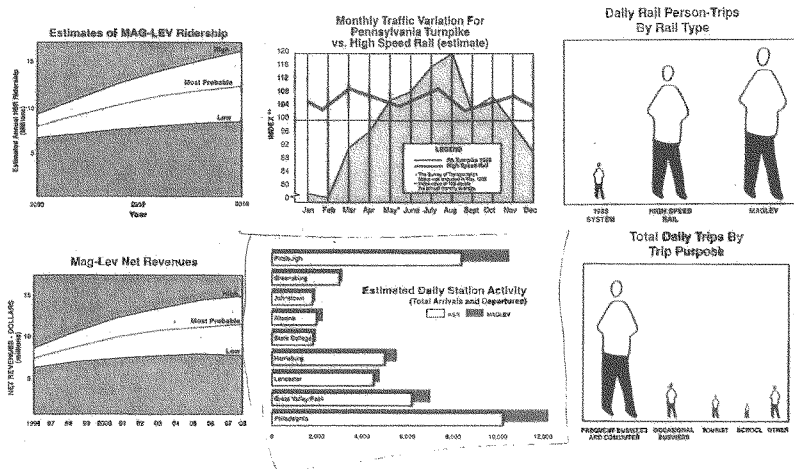
#### Pennsylvania's Image (IMAGE)

Another area is the promotion of Pennsylvania's image as a desirable place in which to do business. This is the most elusive economic benefit to measure, but it is generally recognized that attitude has a great deal to do with industrial development decisions.

An investment in high-speed rail that is soundly financed and well-operated can demonstrate that a state can do something progressive, positive, imaginative and on a large scale to support its economy. This would make a great difference to businesses trying to decide whether to locate in Pennsylvania.

#### Accessibility

Historically, transportation is at the core of economic development, as can be seen in our highway system, ports and airports, along rapid transit lines and along rail freight corridors. High-speed rail also has the potential to be this kind of economic development catalyst.



#### Other Benefits

Other benefits associated with high-speed service:

- Lower unemployment and reduced associated costs of public support of jobless workers.
- Opportunities for young skilled workers to remain in Pennsylvania rather than having to move elsewhere to find employment.
- More productive use of time. High-speed rail avoids much of the wasted time associated with traveling to outlying airports, and canceled or delayed flights caused by weather or equipment problems. Most seasoned travelers have learned to allow extra time to account for such delays.
- Improved safety, compared to highway, air and conventional rail travel. The Japanese Bullet Train fleet has operated for 25 years and carried 3 billion passengers, all without a single fatality. Well-planned and precisely operated systems running over "dedicated" (to one kind of traffic — high-speed passenger rail) rights-of-way offer the safest transportation known to mankind. The French TGV system, in full operation since 1983, has demonstrated a similar perfect record of safety.

#### MARKET DEMAND

An extensive ridership survey conducted in May and June of 1985 indicated that by

the year 2000, high-speed rail could attract 5.5 million to 8.8 million passengers a year. The analysis surveyed existing travel patterns in the Philadelphia-Pittsburgh corridor and established a formula for ridership projection. The 5.5-million-passenger estimate represents the least-optimistic projection for 180 mph steel-wheel service and the 8.8-million-traveler figure represents 250 mph maglev service under favorable economic and population conditions. To avoid overoptimistic projections, the survey was conducted according to recommendations of the High Speed Rail Association's Standard Guidelines for Revenue and Ridership Forecasting.

One of the key findings of the study was that most travel in Pennsylvania takes place at an elapsed time of two hours or less. The significance of this is that bringing the eastern and western reaches of the state to within roughly two hours of each other will greatly stimulate the volume of intercity travel.

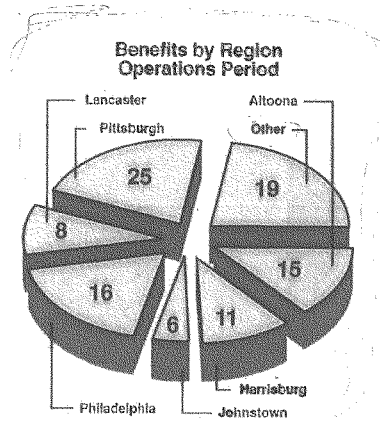
Frequent business travelers, including some commuters, would constitute the largest subgroup of travelers — about 9,500 to 10,500 trips per weekday, or 57 percent of a total weekday ridership of 16,600 to 18,700 passengers. Occasional business travelers would add another 4,600 to 5,500 passengers each weekday, for 26 percent. Tourists would account for 1,500 to 1,600 riders a weekday, or 9 percent. School trips represent about 500 trips a day.

\*Fares were assumed to range from 16 to 28 cents a mile, with the average being 22 cents a mile. Higher fares would be charged for business travel that is less price-sensitive than other market segments, lower fares for off-peak and incentive travel.

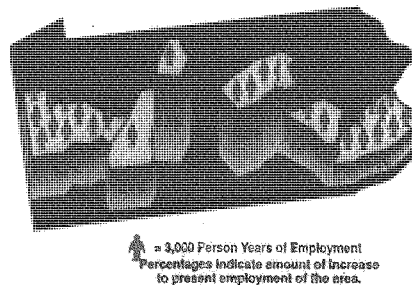
In May and June of 1985, 25,538 questionnaires were handed out to passengers aboard Amtrak trains, to Turnpike motorists and to airline passengers. Of those, 8,653 forms were returned in person or by postpaid mail, for a 34.6 percent response rate. Questionnaires were intended to find out who is traveling in the corridor, how often, why and by what means; what time of day they travel; how long it took to make the total trip; origin and destination; and who is paying for the travel. In August 1985, commission consultants conducted a series of subjective market research surveys in Philadelphia, Harrisburg, and Pittsburgh, using 215 randomly recruited volunteers. They were tested in a focus-group setting to determine the criteria they use in choosing how they travel, specifically, how much weight they placed on such important but difficult-to-quantify aspects as comfort, convenience, amenities, reliability, security and perceived safety.

The most important factors, the survey found, were schedule reliability, cost, frequency and average speed or travel time. The most important characteristics for frequent business travelers were cost,





**Distribution of Employment Impacts  
Among Urban Areas During Construction**  
(Average of Lower and Higher Alternatives)



reliability and frequency. Weather vulnerability also played an important role. Those who travel for other trip purposes (tourist, school, "other") judged trip time, cost, reliability and frequency to be the most important factors.

#### FINANCING

**Editor's Note:** Preliminary financing studies were initiated by the commission's consultants. Before a detailed study could be accomplished, funding was discontinued. In the meantime, there have been new technology developments and new Federal legislation, which provides for tax-free bonding for high speed rail projects. These developments have completely altered the bottom line. Consequently, no valid financial package exists for the options considered in the study. A financial plan should be developed.

The information that follows is based on preliminary financing studies conducted by the consultants in 1987 and earlier, and should be considered only in that context. Computations were made on the basis of 1986 dollars.

A synopsis of the financing work performed for the commission follows; it is derived from data provided to the commission by the general engineering consultant and computer spread-sheets provided by the financial subconsultant in March 1987. As noted in the Introduction

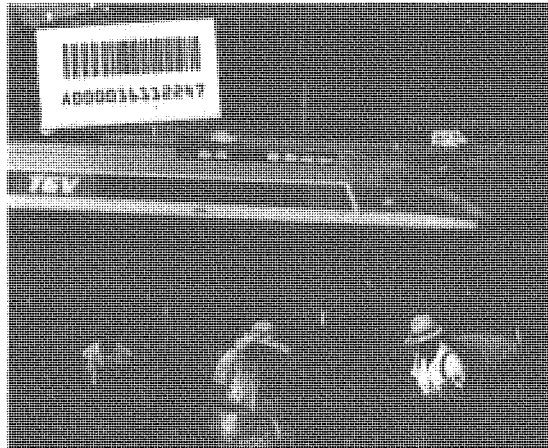
to this report and in the recommendations, it does not address some avenues of capital funding that are now being pursued in other states.

The preliminary financing analysis performed for the commission draws the conclusion that the only affordable high-speed rail system is that which uses the least advanced technology and costs about \$2.55 billion. This automatically ruled out any consideration of maglev (Option 1) or the high speed steel-wheel technology (Option 2), without further study as to how cost estimates could be reduced or how construction could be advanced in stages. Conservative in nature, this approach was based on a premise that no federal assistance, of any kind, is available and that no foreign financing can be found. Further, it did not take into account methods by which the presumed lid on capital costs might be overcome. These means include considering the cash contribution available from real estate value-capture programs, which would turn revenue derived from the retail, hotel and office development in the vicinity of stations back to the high-speed rail system.

Excluding these potential revenue-producers resulted in an assumption that the only source of capital funding is the Commonwealth itself, on a full faith-and-credit basis. However, representatives of foreign suppliers have offered to help locate sources of foreign financing to build high-speed rail in the United States and

specifically, Pennsylvania. And, by requesting that the general engineering consultant produce a station development report, the commission clearly indicated its intent to harness real estate values to make the system more financially self-sustaining. The federal political climate and deficit-reduction sentiment at the national level suggest that direct federal grants to build such a project are not in the offing. However, federal assistance in a form other than direct capital outlay could substantially aid the project, specifically in the form of tax-free status for revenue bonds. (This status was achieved in 1988 with the addition of high speed rail to the list of transportation modes eligible under the federal tax laws.)

The results of the commission's financing analysis are accurate in preliminary fashion, within the narrow context in which they were conducted, but incomplete. It is these additional areas of financing details that were to have been addressed during the final phase of the commission's work, and which should be studied in any further consideration toward implementation of high-speed rail. A re-evaluation of the financial assessment would be necessary in any event in view of the significant tax-law changes that have ensued. Further, Phase 1 capital costs were extremely conservative; lower costs resulting from optimized alignment work were not developed, and reviewing this issue also will be necessary for any subsequent reexamination of the proposal. No discussion of financing high-



Workers in the vineyards of France don't even glance at the quiet TGV as it streaks by en route to Lyons.

speed rail in Pennsylvania can be complete without reference to the West German consortium of Transrapid International. Transrapid proposed in the spring of 1997 to design and build a maglev system between Harrisburg and Pittsburgh at a cost not exceeding \$3 billion, and pledged its assistance in locating offshore capital financing. This engineering proposal is contained in an addendum to the full final report. A representative of the TGV Co., suppliers of the French steel-wheel high-speed train, subsequently made a similar offer.

The financial consultants assumed that the only source of funding for capital expenditures would be the Commonwealth and concluded that both the early \$7 billion high-speed (150 mph) steel-wheel plan and the early \$10 billion maglev plan contained considerable investment risk and were not financeable. Using the same premises, these consultants said a lower-performance (125 mph, with a few stretches of 150 mph operation) system costing \$2.55 billion could be financed.

The commission believes that the financing analysis is accurate but it overlooks significant instruments by which a plan could be implemented, thus missing the point of the feasibility study. Detailed and realistic financing analysis are requisite before high-speed rail can be implemented.

The commission's consultants have studied the benefits and drawbacks of structuring the system as a public, private

or joint public-private entity, but no conclusions were reached.

Without a detailed project proposal, no firm conclusion can be drawn, but a public body would be an appropriate means by which to begin the project.

#### ENVIRONMENT

The ecological effects associated with a high speed rail system would be much less severe than those associated with building new interstates or airports. In virtually all categories — land required, energy consumption, noise, vibration, air pollution and aesthetic intrusion — railroads are potentially less damaging to the environment than airports or freeways.

#### Land Use and Aesthetic Intrusion

In areas where all-new right-of-way is needed, some landowners may object to intrusion. The intrusions can be minimized by careful site selection — e.g., by paralleling interstate highways or existing rail lines, by using shock-absorbing elements, or by locating the track on an elevated structure or under ground. However, tunneling can cost many times more than at-grade construction, and may be unavailable near urban freeways.

On the other hand, the amount of right-of-way needed for a double-track railroad is comparatively small. The entire 205-mile double-track route of the Paris-Lyons Line occupies less land than the DeGaulle Airport in Paris.

A promising mitigation measure is to elevate the system (particularly with maglev technology) so that only an easement, rather than outright property acquisition, would be required. This would be particularly advantageous through agricultural areas where the high speed system need not halt present land use.

#### Noise, Vibration and Air Quality

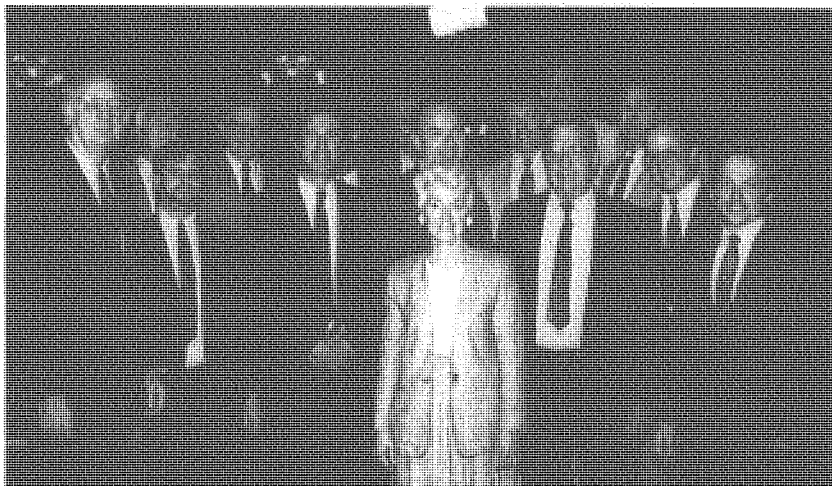
All the systems studied use high technology equipment that is inherently quieter than existing rail systems. Electrically powered trains minimize propulsion noise, and such devices as continuous welded rail, elastomeric track pads, floating slabs and acoustical barriers can reduce noise and vibration. Maglev systems are potentially attractive, because there is no contact between vehicle and guideway. A relatively low frequency — hourly services in each direction as assumed throughout the study — means that noise impact would be low.

Air pollution from railroads is minimal, especially in electrified operations, where emissions from burning fuel are confined to power plants. The level of pollutants emitted by power rail passenger vehicles is minuscule, compared to emissions from other transportation modes, notably highway vehicles and aircraft. Electric utilities along the proposed system have enough reserve capacity to supply high speed rail without requiring construction of new generating stations.

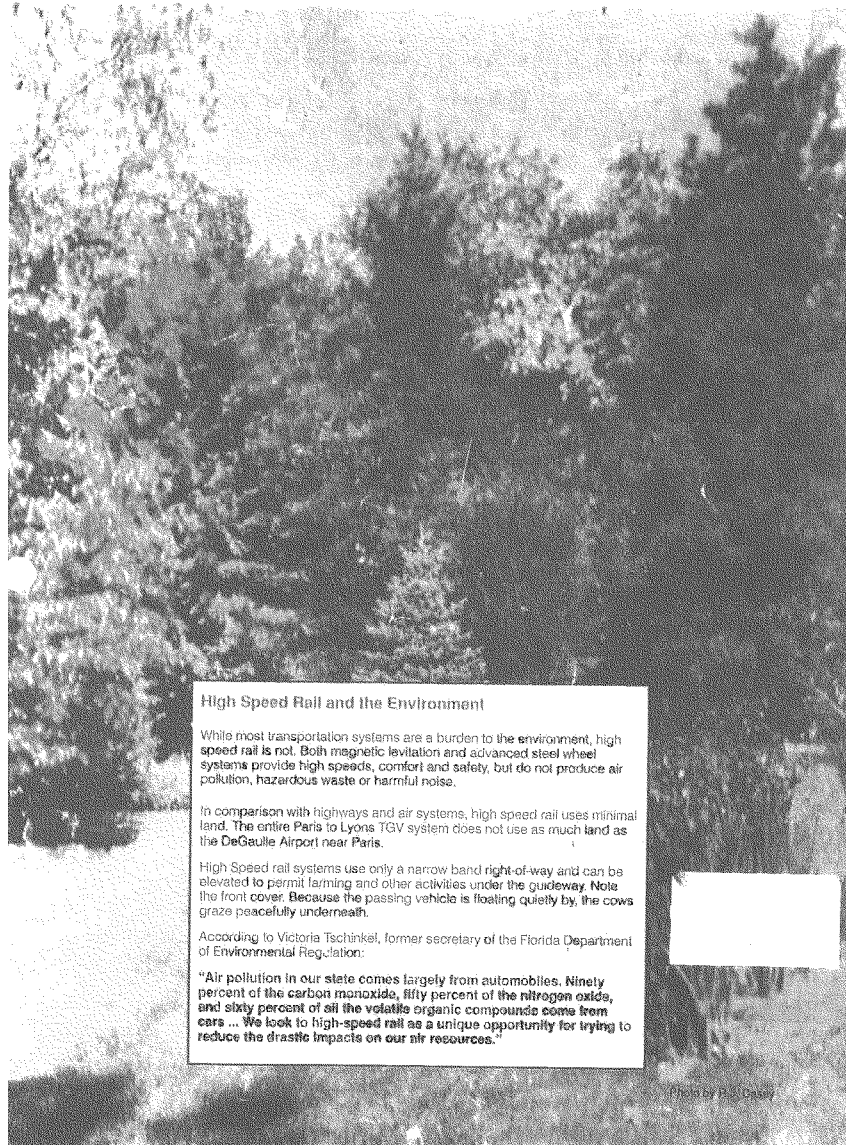
### FOR THE RECORD

The four-year, \$4 million Pennsylvania high speed rail study was halted by the administration of Gov. Robert Patrick Casey just before it was completed. The Commission obtained a \$44,000 grant from the Federal Railroad Administration for publication of a Final Report. The Report was prepared by several ex-commissioners and ex-staff members. At first, the governor's people refused to accept the grant and refused to publish the Report. After considerable urging by the public, the grant was accepted and

the Report was published two years after the study was terminated (only 700 copies were printed). However, the Report was in "words only" without benefit of maps, charts, graphs and photos. This was because a representative of the governor refused to allocate any of the Federal grant to provide illustrations. Now, however, due to a grant to the High Speed Rail Foundation from Transrapid International, some illustrations were made possible for this Executive Summary.



The Commission: Front, Mrs. Dottie Ketner, (executive secretary); front row, Richard C. Sullivan, Dan Cupper (executive editor); guest John Riley, (Federal Railroad Administrator); Robert A. Gleason, Representative Amos K. Hutchinson, Scott Casper (executive director of the House Transportation Committee); and Eric Bugalle (executive assistant); back row, Robert A. Patterson, Robert J. Casey (executive director of the Commission); Kant Rao, Everett W. Croyle, Representative Rick Geist, Lowell Wilmer (representing Senator J. Doyle Corman) and Senator J. Barry Stout.



### High Speed Rail and the Environment

While most transportation systems are a burden to the environment, high speed rail is not. Both magnetic levitation and advanced steel wheel systems provide high speeds, comfort and safety, but do not produce air pollution, hazardous waste or harmful noise.

In comparison with highways and air systems, high speed rail uses minimal land. The entire Paris to Lyons TGV system does not use as much land as the DeGaulle Airport near Paris.

High Speed rail systems use only a narrow band right-of-way and can be elevated to permit farming and other activities under the guideway. Note the front cover. Because the passing vehicle is floating quietly by, the cows graze peacefully underneath.

According to Victoria Tschinkel, former secretary of the Florida Department of Environmental Regulation:

"Air pollution in our state comes largely from automobiles. Ninety percent of the carbon monoxide, fifty percent of the nitrogen oxide, and sixty percent of all the volatile organic compounds come from cars ... We look to high-speed rail as a unique opportunity for trying to reduce the drastic impacts on our air resources."

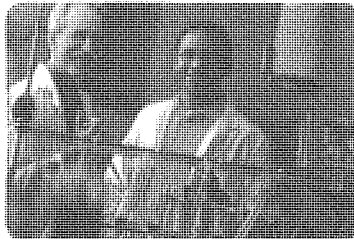
Photo by P. J. Casey

# Penn State: Giving back



Penn State is an economic powerhouse in the Commonwealth, directly or indirectly affecting every resident of the state. It generates more than \$17 billion annually in overall economic impact.

—TRIPP UMBACH & ASSOCIATES, 2008 ECONOMIC IMPACT STATEMENT



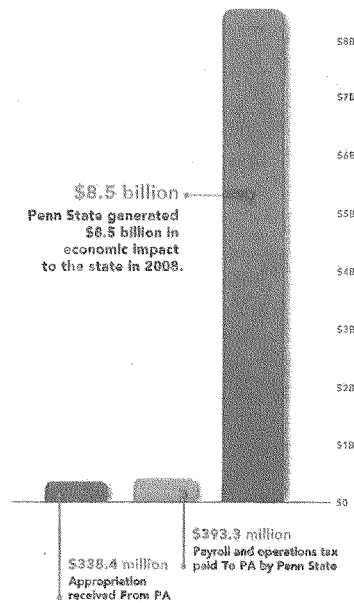
Penn State contributes more to the state's economy annually than any other industry. In 2008, the University generated \$8.5 billion in direct and indirect economic impact and an additional \$8.7 billion through business services, research commercialization, and the activities of alumni, for a total of more than \$17 billion.

For every dollar invested in 2008 by the Commonwealth to support the operations of Penn State, the University returned \$25.06 in total economic impact to Pennsylvania.

Penn State generated \$647 million in tax revenue for the Commonwealth in 2008. In other words, the University returned \$1.91 in tax revenue for every \$1 it received in appropriation.

## ECONOMIC IMPACT, 2008

(Does not include \$8.7 billion additional induced impact.)



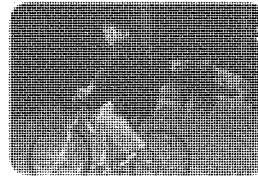
## Running on Penn State power

In 2008, Penn State commissioned an independent study by the Pittsburgh-based Tripp Umbach & Associates to gauge the value of the University to the Commonwealth. Key findings in the 2008 Tripp Umbach report include the following:

- ❶ Penn State generated more than **2 percent** of the state's business volume or more than **\$1 out of every \$50** in the state's total economy.
- ❷ The University annually expends more than **\$700 million** through its research activities. Research at Penn State supports more than **18,000 additional jobs** in Pennsylvania, which generates more than **\$1.9 billion** in additional economic impact and more than **\$61 million** in additional revenue for the Commonwealth annually.
- ❸ The University is the largest creator of total employment among nongovernmental entities. Penn State has **44,000 employees**, nearly **30,000 of them full-time**. The total payroll from Penn State annually generates **\$805 million** in direct impact through faculty, staff, and technical service employees' spending.
- ❹ The University currently generates more annual economic impact than the combined total impact of all of the state's airport hubs, professional sports teams, and arts and cultural organizations, by attracting nearly **1 million visitors** and generating **\$1.73 billion** annually.
- ❺ Student spending amounts to **\$932 million** in the state's economy.
- ❻ In 2008, out-of-state visitors to Penn State generated nearly **\$777 million** in the Pennsylvania economy.
- ❼ The more than **250,000 alumni** who live in Pennsylvania generate **\$1.9 billion** annually in additional economic impact, and produce **\$59 million** in additional government revenue for the state.
- ❽ More than **17,000 Penn State alumni** own businesses in Pennsylvania, which directly employ more than **475,000 residents**. The average wage of employees at companies owned by Penn State graduates is **\$9,800** higher than the average wage earner in Pennsylvania. This translates into more than **\$4.1 billion** in additional expansion of the state's economy and more than **\$125 million** in additional government revenue for the Commonwealth annually.
- ❾ Penn State employees donate more than **\$130 million** annually in charitable donations and volunteer services within the Commonwealth.
- ❿ The total direct and indirect economic impact of Penn State is projected to grow over the next five years, from **\$8.5 billion** to **\$9.5 billion** in 2013.

This publication is available in alternative media upon request.  
Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.  
Produced by the Penn State Department of University Publications 12/08 PUS 09-49

The total impact of Penn State's research activities is valued at \$700 million annually throughout the Commonwealth and the generation of more than 18,000 additional jobs.



### CHECK IT OUT

To learn the Tripp Umbach research report and associated information, visit [www.psu.edu/economicimpact](http://www.psu.edu/economicimpact).

For more information, contact the Penn State Department of University Publications at [pubs@psu.edu](mailto:pubs@psu.edu).

Attachment D

### **Letters for the Record**



**Centre Region Council of Governments  
OFFICE OF ADMINISTRATION**

2643 Gateway Drive, Suite 3 • State College, PA 16801-3885  
Phone: (814) 231-3077 • Fax: (814) 231-3083 • [www.crcog.net](http://www.crcog.net)

June 17, 2009

Mr. Daniel Sieminski  
Assistant Vice President for Business and Finance  
The Pennsylvania State University  
208 Old Main  
University Park, PA. 16802

Dear Dan:

This communication is written on behalf of the Executive Committee of the Centre Region Council of Governments that consists of elected officials from State College Borough and College, Ferguson, Halfmoon, Harris, and Patton Townships.

During its June 16, 2009 meeting, the Executive Committee discussed the concept of constructing a high speed rail connection from the City of Philadelphia to the City of Pittsburgh. In this regard, the Committee unanimously approved the following motion:

*"The Centre Region COG endorses the concept of high-speed rail in Pennsylvania. The COG is interested in the project, and will need to assess the implications for the community."*

This assessment is being conducted by the COG's Transportation and Land Use Committee. It should be presented to the General Forum, the COG's governing body, during its July 27, 2009 meeting.

Thank you for giving us the opportunity to comment on this important public transportation proposal.

Sincerely,

James C. Steff  
COG Executive Director

JCS/cmp

cc: Executive Committee  
Jim May, CRPA Director  
Tom Zilla, CCMPO

*Serving the Townships of College, Ferguson, Halfmoon, Harris, Patton and the Borough of State College*





200 Innovation Boulevard  
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Email: [cbicc@cbicc.org](mailto:cbicc@cbicc.org)  
[www.cbicc.org](http://www.cbicc.org)

June 17, 2009

Dan Sieminski  
The Pennsylvania State University  
208 Old Main  
University Park, PA 16803

Re: PA High Speed Rail

Dear Mr. Sieminski:

The Chamber of Business and Industry of Centre County (CBICC) is pleased to learn that the Pennsylvania State University will testify in support of a high-speed rail line that would greatly enhance east-west travel across Pennsylvania. It is a large but extremely worthy investment of federal funds.

It is our understanding that the project, if funded, would ultimately connect Pittsburgh and Philadelphia with stops in major Metropolitan Service Areas, including State College. The planned rail system would truly be a boon to the University and Central Pennsylvania. It would spur economic development, create new jobs, reduce energy use, and limit harmful emissions.

Unfortunately, airline companies have been unable to justify direct air service between State College and Pittsburgh. A connecting high-speed rail line would provide a viable alternative to air travel between these locations.

Given the growing need for infrastructure improvements in Centre and surrounding Counties, we commend and support your efforts to address an alternative to critical infrastructure projects currently on indefinite "hold", mainly due to fiscal constraints. These include: the I-80-89 high-speed and local access interchanges; the I-80 connector road to the University Park Airport; and the replacement of the outdated and unsafe Route 322 (SCCCTB) Highway between State College and Lewisburg.

Because it would be detrimental to the Central PA economy, the CBICC is opposed to the tolling of I-80. An east-west high-speed rail system would reduce traffic on I-80 and quite possibly provide enough revenue to offset the envisioned toll collections. It would also reduce maintenance and upgrade costs for the Interstate and its connecting roadways.

With the completion of I-99, the Rt. 322 Lewistown "narrows", and considerable new Rt. 22 highway between Altoona and Pittsburgh, there exists many new public rights-of-way which might accommodate high-speed rail where existing rail corridors are either unsuitable, or reserved for heavy freight.

On behalf of the CBICC, I wish you success in your efforts to secure the necessary funding for this forward thinking project. If we can be of further assistance please contact me at your convenience.

Sincerely,

A handwritten signature in black ink, appearing to read 'JFC', with a stylized flourish extending from the end.

John F. Coleman, Jr.  
President/CEO

Cc: Betsy Howell, CPCVB



June 17, 2009

Daniel W. Sieminski  
Associate Vice President for  
Finance and Business  
208 Old Main  
University Park, PA. 16802

Dear Mr. Sieminski:

This letter serves as the Central Pennsylvania Convention and Visitors Bureau's vote of support for the proposal to ~~develop a high-speed~~ rail system in Pennsylvania, including through Centre County. We respectfully request that you include it as part of your testimony to the U. S. House of Representatives Committee on Transportation and Infrastructure.

Our location in the center of Commonwealth of Pennsylvania and our assets, such as The Pennsylvania State University, make the area a natural location for connection to the rail system between Pittsburgh, Harrisburg and Philadelphia.

More importantly, the addition of rail service would provide locals, visitors and PSU students' easy access to and from other major Pennsylvania metropolitan areas thereby having a positive economic impact while at the same time having the potential to decrease pollution from automobile travel along with the cost of maintenance of highways such as I-80 and Rt. 322.

We commend you for your efforts and if there is anything else we can provide please contact me at 814-231-1401.

Sincerely,

*Betsy Howell*

Betsy Howell,  
Executive Director



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State College, PA 16801  
814-238-CATA (2282)  
FAX: 814-238-7643  
[www.catabus.com](http://www.catabus.com)

Centre Line  
Centre Ride  
Centre Commute  
LOOPLINK

The Honorable James L. Oberstar  
Chairman  
Committee on Transportation  
& Infrastructure  
2165 Rayburn House Office Building  
Washington, DC 20515

The Honorable John L. Mica  
Ranking Member  
Committee on Transportation  
& Infrastructure  
2163 Rayburn House Office Building  
Washington, DC 20515

June 16, 2009

Re: The Keystone Corridor – High Speed Rail Across Pennsylvania

Dear Chairman Oberstar and Ranking Member Mica:

We are writing on behalf of the Centre Area Transportation Authority (CATA), the public transportation system that serves the State College, Pennsylvania urbanized area, home of the Pennsylvania State University. According to the National Transit Database, CATA is the third largest transit system in the state, in terms of passengers carried, ranking behind only SEPTA in Philadelphia and the Port Authority Transit in Pittsburgh.

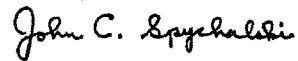
CATA strongly supports the creation of high-speed rail across Pennsylvania, connecting Pittsburgh with Philadelphia and allowing passengers to directly access the Northeast Corridor. Such service would presumably include intermediate stops to serve the larger communities in the central part of the state. Due to the presence of the Pennsylvania State University, State College is arguably the most significant destination west of Harrisburg. High speed rail service would provide a viable alternative to air travel, intercity bus and even the private automobile for the hundreds of thousands of people who travel annually from the major metropolitan areas of the Northeast to State College.

The Keystone Corridor is important in several ways. First, the State College area will benefit. Many students bring a car to campus not because they need it while they are here, but simply for transportation to and from State College. High-speed rail will encourage students to leave their cars at home, which will help alleviate traffic and parking problems on campus and in the community. Second, CATA will benefit. Individuals who come to State College without a private automobile typically become regular users of public transportation. Not only does the use of transit immediately support several important national goals, including energy independence, but the positive experience that students have riding CATA buses should translate

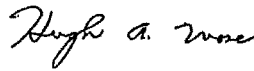
to greater utilization of public transportation later in life. Third, the users themselves will benefit. High speed rail will allow travelers the opportunity to better utilize their time, and rail will be less susceptible to disruptions due to weather and highway bottlenecks.

Thank you for the opportunity to provide this testimony to the Committee, and for your support of high speed rail in general and the Keystone Corridor in particular. Should you or your staff be interested in further information about the Centre Area Transportation Authority or our interest in high speed rail, please do not hesitate to contact us.

Sincerely,



John C. Spychalski  
Chairman



Hugh A. Mose  
General Manager

Pc: CATA Board of Directors  
Dan Sieminski, Penn State

**Written Statement of**

**Lorenzo Simonelli**

**President and CEO**

**GE Transportation**

**2901 East Lake Road**

**Building 14-5**

**Erie, PA 16531**

**Tel: 814-875-3339**

**Before the**

**U.S. House of Representatives**

**Committee on Transportation and Infrastructure**

**Subcommittee on Railroads, Pipelines, and Hazardous Materials**

**Regarding**

**"Passenger Rail Service and U.S. Locomotive Manufacturing"**

**June 22, 2009**

**Congressional Testimony on  
Passenger Rail Service and U.S. Locomotive Manufacturing  
Lorenzo Simonelli  
President and CEO, GE Transportation  
June 22, 2009**

Mr. Chairman, Honorable Members of the Committee. My name is Lorenzo Simonelli and I serve as the President and CEO of GE Transportation based in Erie, Pennsylvania. Established more than 100 years ago, GE Transportation is a global technology leader and supplier to the railroad, marine, drilling, mining, and wind industries. We provide the most technologically advanced freight and passenger locomotives, signaling and communications systems, high-quality replacement parts and value added services to our customers around the globe. Approximately 17,000 GE locomotives are currently in use in more than 50 countries around the world. With sales in excess of \$5 billion annually, GE's transportation business employs approximately 10,000 individuals worldwide.

The infusion of \$8 billion in funding for high-speed passenger rail in the stimulus legislation provides an opportunity for the United States to develop a leading position in passenger locomotive production. As the President's Vision for High-Speed Rail in America report in April noted:

After decades of relatively modest investment in passenger rail, the United States has a dwindling pool of expertise in the field and a lack of manufacturing capacity.

GE is prepared to build in Northwestern Pennsylvania the next generation high-speed diesel electric passenger locomotive which will support the high-speed rail initiative, create U.S. passenger rail manufacturing capacity, and provide well-paying jobs.

GE Transportation is arguably best known for the development and commercialization of its groundbreaking Evolution Series locomotive. GE made a \$400 million and eight-year investment in reinventing what a locomotive could be. The Evolution Series locomotive is the most

technologically advanced, fuel-efficient and low emission locomotive to-date. It is 5% more fuel-efficient and generates 40% lower emissions than previous locomotives. One locomotive saves approximately 300,000 gallons of fuel over the life of the locomotive. According to a study by an independent research laboratory, GE's Tier 2-emission compliant locomotives deliver a 6% fuel advantage over our competitor in North America.

GE is prepared to transfer this state of the art technology to the next generation of high-speed passenger locomotives. Introduced in 2005, the Evolution Series locomotive is one of GE's first products to be certified as part of its "Ecomagination" initiative. Ecomagination is a company wide commitment to developing technology designed to help customers satisfy environmental challenges, to maximize performance and reduce cost. Our leadership in diesel-electric freight locomotives translates seamlessly to passenger locomotives. GE's Evolution Series locomotive lays the foundation for the next generation passenger locomotive delivering an estimated 25% of fuel savings and emission reduction by approximately 60% compared to the older locomotives currently in use.

### **Challenging Economic Times**

Both the United States and the General Electric Company currently face the most challenging economic environment in decades. However, times of crisis offer unique opportunities to innovate and upgrade. Now is the time to revitalize the passenger rail industry in our country and to create U.S. jobs by building the next generation passenger locomotives here and replacing 20 years, 25 years or older locomotive assets with state-of-the-art green rail transportation solutions.

GE has a long and successful past working with Amtrak. GE designed and produced for Amtrak the Genesis<sup>®</sup> passenger locomotive in 1997 with the most recent production run in 2001. GE is prepared to work with DOT, Amtrak, and the states on the specifications for and production of these next generation passenger locomotives that will support the high-speed rail initiative. Specifically, I applaud that the DOT in its high-speed rail program guidance on June 17 noted that:



If the applicant is seeking a grant for the procurement or design of railroad equipment, the proposed equipment should be consistent with Section 305 of PRIIA, which calls for the establishment of a standardized next-generation rail corridor equipment pool. Compliance with Section 305 of PRIIA will assist in creating the economies of scale necessary to achieve the Administration's goal, as outlined in FRA's Strategic Plan, of developing a sustainable railroad equipment manufacturing base in the United States.

Congress and the Administration need to ensure that there is a standardized approach to passenger locomotives that recreates a U.S. industry, with significantly lower production costs for new passenger locomotives. If we fail to adopt a standardized approach, the true benefits, from jobs to efficiency, will be far less significant. This would also encourage the investment needed in new manufacturing capacity as opposed to utilizing an array of foreign produced technologies. Additionally, commonality will provide a greater margin of safety, particularly as Positive Train Control (PTC) requirements are implemented over the next several years. Further, to the extent that Amtrak is involved or coordinates with the states on the new corridors, compatible equipment will not only save money but also promote safety and service reliability.

GE believes that freight railroads will also benefit with more certainty on the types of passenger locomotives on which they will be sharing their track. Because passenger corridors coexist with freight traffic, freight railroads are properly concerned with issues such as trackage stress levels caused by higher speed trains and insuring high levels of safety. Including freight railroads as part of this process of setting specifications would positively contribute to the successful implementation of the Administration's vision for high-speed rail.

Using technology developed through the Evolution locomotive, GE will meet the DOT standards by building new passenger locomotives with a top speed between 110mph and 124 mph with the benefits of AC propulsion system that improves reliability and availability with lower life cycle cost. They will also be Tier 2 emission compliant by 2010 and Tier 3 compliant by

2012. As a measure of the environmental benefits of this new technology, replacing a fleet of 200 older locomotives would have a savings impact of 2 millions gallons of fuel and an emission reduction 21,000 tons of CO<sub>2</sub>, 1,560 tons of NO<sub>x</sub>, and 200 tons of particulate matter. In addition, this upgrade would sustain approximately 1,900 jobs right here in America.

Compared to locomotives currently in service, the next generation GE diesel-electric passenger locomotive also will reduce operating expense with 25% better fuel economy versus today's locomotives in service. The next generation of passenger locomotives will also meet the most advanced requirements in safety such as crashworthiness and positive train control (PTC).

We encourage the Federal Government and Amtrak to continue to exercise leadership. In administering the \$8 billion high-speed rail program, the Department of Transportation must focus its efforts on developing domestic passenger rail manufacturing capacity. Similarly, today Amtrak is uniquely positioned to provide new leadership in passenger rail by through upgrading and expanding its passenger locomotive fleet.

GE demonstrated over the past decades that it possesses the know-how and manufacturing base in the US to develop the next generation of fuel-efficient and low emissions high-speed passenger locomotives. In order to further promote high-speed railroading in the US, GE also is exploring cooperating with car body suppliers.

We are ready to partner with the Federal government, the States, and Amtrak to make higher and high-speed passenger rail a reality by providing locomotives "made in the U-S-A" rather than importing technology and products from overseas.

The modernization and greening of aging locomotive fleets in America could clearly have a profound impact on safeguarding well-paying manufacturing jobs in the US and right here in Pennsylvania.

We sincerely hope that all members of this committee as well as our customers share our vision of resetting the passenger locomotive industry in the US, which will carry us further into the 21<sup>st</sup> century.

Thank you again for the opportunity to speak before you. I would be happy to answer any questions you might have either in this forum or at a later date.

Statement of  
David E. Wohlwill  
Manager of Extended Range Planning  
Port Authority of Allegheny County  
345 Sixth Avenue, Third Floor  
Pittsburgh, PA 15222-2527  
412.566.5110

Submitted for the record to the  
U. S. House of Representatives  
Subcommittee on Railroad, Pipelines and Hazardous Materials  
Committee on Transportation and Infrastructure Hearing on  
"Expanding Rail Passenger Service"  
June 22, 2009  
Pittsburgh, PA

Good morning, Chairman Altmire. I am pleased to represent the Port Authority of Allegheny County before the Subcommittee and very much appreciate the invitation.

Port Authority is a multimodal transit agency providing transit service to Allegheny County's residents on 188 bus, light rail and inclined plane routes. Every weekday, approximately 220,000 trips are made on Port Authority's bus and rail routes. Port Authority is currently undertaking a Transit Development Plan to revitalize and restructure its existing network of services for a more efficient and effective transit system which better addresses the mobility needs of Allegheny County's residents.

Although Port Authority does not operate any regional or intercity passenger services or own any intercity passenger stations, we are interested in proposals for expanded passenger rail service in Western Pennsylvania. As the rail proposals are developed further, we strongly recommend that planning for stations considers integration with Southwestern Pennsylvania's existing transit systems.

Amtrak's Pittsburgh station is located adjacent to the Penn Station of the Martin Luther King, Jr. East Busway. The East Busway is a 9.1-mile bus rapid transit facility linking downtown Pittsburgh with the City of Pittsburgh's East End neighborhoods and eastern suburbs. About 25,000 trips are made on Port Authority's East Busway routes every weekday. Thus, travelers from many eastern communities have direct access to Amtrak with a very short walk from Penn Station on the East Busway. Additionally, several of Allegheny County's northern and western communities are directly linked to the Amtrak Station with bus routes serving those areas having their endpoints at Penn Station.

In recent years, Penn Station has emerged as the regional transit hub for Southwestern Pennsylvania's transit systems. In addition to Port Authority routes serving Penn Station, all other transit providers which connect the counties surrounding Allegheny County with

downtown Pittsburgh begin and end their trips at Penn Station. These carriers are: Beaver County Transit Authority, Fayette Area Coordinated Transportation, Mid-Mon Valley Transit Authority, Myers Coach Lines, New Castle Area Transit Authority, Washington City Transit, Westmoreland County Transit Authority. Thus direct access to the Amtrak station is not only possible from many locations throughout the Southwestern Pennsylvania Region.

This very high level of transit access makes it possible for rail passengers arriving in Pittsburgh to access many points in the region without the expense of a rental car. Additionally, these transit connections offer residents of the region traveling from Pittsburgh an alternative to limited and expensive parking near the station.

While linkages to local and regional transit are important, I would also like to take this opportunity to mention a secondary benefit of the current location of Amtrak's Pittsburgh Station. The Port Authority's Police Department is based out of Pitt Tower, just east of Penn Station. Although the Port Authority's police department is focused on the transit system, the proximity of the police headquarters to the Amtrak station and platforms can provide another set of eyes and ears, which would further enhance station area security.

In the later phases of project development, when fares and fare systems are considered, we would encourage development of fare instruments which would be not only for train travel, but also usable on local transit systems at the beginning and end of the rail passengers' journeys. Such instruments would further enhance integration of Southwestern Pennsylvania's transit systems into a Western Pennsylvania rail passenger service.

In conclusion, Port Authority is excited the opportunities for further integration of local and regional transit into an improve rail passenger service serving Western Pennsylvania. Effective integration of Southwestern Pennsylvania's transit systems with rail passenger service will be mutually beneficial for the region's transit providers, the rail passenger operator (whether it is Amtrak or another operator) and the users of the rail service. We look forward to working with Congressman Altmire and other elected officials as well as the agencies and organizations involved in further developing passenger rail service in Western Pennsylvania.



## BOROUGH OF OAKMONT

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CHERYL P. ZENTGRAF

June 19, 2009

Ms. Rachel Carr, Counsel  
Committee on Transportation and Infrastructure  
Subcommittee on Railroads, Pipelines and Hazardous Materials  
Washington, D.C. 20515

Dear Ms. Carr,

As requested by Corrine Brown, Chair of the Subcommittee on Railroads, Pipelines and Hazardous Materials, in her correspondence faxed to me on 6/9/09, my name is Robert J. Fescemyer, and I am currently the Mayor of Oakmont Borough, Oakmont, Pennsylvania, Allegheny County.

Due to a variety of personal circumstances, neither I nor my alternative representative (Michael L. Federici, Oakmont Borough Council President) were able to provide, in timely fashion, the requested written testimony by electronic mail, in order to be properly scheduled for an oral, summarized presentation of our submitted testimony during the 6/22/09 field hearing to be held in Pittsburgh; despite these circumstances, it is our further understanding that this submitted written testimony will nevertheless be included as part of the overall field hearing record; and for this accommodation, we are grateful.

Insofar as this subcommittee hearing is focused on expanding passenger rail service in the United States, and in particular, the Western Pennsylvania region, we urge the RP&HM Subcommittee to consider seriously the proposed **Allegheny Valley Commuter Rail (AVCR)**, a transit project proposed to provide passenger rail service to connect residents of Westmoreland County and the Allegheny-Kiski Valley region with downtown Pittsburgh; and eventually, with the Pittsburgh International Airport.

It is our further understanding that the **AVCR** would operate diesel commuter trains along privately-owned rail lines from Arnold, PA (Westmoreland County) to Pittsburgh; is projected at this time to cost in the \$100M to \$125M range (to bring the 18.4 miles of existing track into compliance standards for commuter train operation); is further estimated to require ongoing operating and maintenance costs of between \$6M and \$7M annually; and is initially estimated to generate approximately 2,700 one-way fares, or 1,350 round-trip riders, on a daily (weekday) basis.

Primarily, the **Allegheny Valley Railroad (AVR)** operates its own freight trains along these existing rail lines; but would be willing to work cooperatively with **AVCR** operators by scheduling its freight operations for evening and overnight operation only, thereby allowing the **AVCR** to operate during daytime hours.

OAKMONT BOROUGH IS AN EQUAL OPPORTUNITY EMPLOYER

Committee on Transportation and Infrastructure  
 Subcommittee on Railroads, Pipelines and Hazardous Materials  
 6/22/09 Field Hearing, Pittsburgh, PA  
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The environmental and planning studies required as a precondition of documenting the feasibility of such an undertaking, have been more recently and significantly advanced as a result of the supportive efforts of U.S. Representative Jason Altmire when, in early July 2008, Mr. Altmire secured, and presented to Allegheny and Westmoreland County officials, a check for \$500,000 to be used to complete these initial study efforts. In fact, Mr. Altmire made this presentation during a short meeting and announcement ceremony which was held in our Oakmont Borough Building.

The advantages and benefits of continuing to move forward with the support and establishment of the **AVCR** are numerous, and should be considered seriously by the RP&HM Subcommittee, including but not limited to:

1. **Increased vehicular congestion along Route 28.** The Route 28 corridor, extending northeast (from Westmoreland and Armstrong counties) to southwest and into the Pittsburgh area along the northern bank of the Allegheny River, has grown progressively (and notoriously) thicker with traffic congestion for the last several decades; more recently, the Pennsylvania Department of Transportation (PennDOT) has commenced what is expected to be at least an 8-10 year, phased, comprehensive reconfiguration/reconstruction project along some of the most dangerous segments of this highway, which will only result in much of this highway's pre-existing traffic being re-routed through some of Pittsburgh's city neighborhoods and suburban communities least equipped to deal with such traffic volumes.

By contrast, the **AVCR** should prove to a very reliable and less stressful commuting alternative to the vehicular choking conditions expected for Route 28.

2. **Continuing riverfront, brownfield development along Allegheny River, southern bank communities.** In Oakmont (site of countless national professional and amateur golf tournaments over the last century), the former Edgewater Steel Company riverfront site will eventually be transformed into a comprehensive mixed commercial/residential development – *and this site is easily within only a several minutes' walk of the existing rail lines upon which the AVCR is proposed to operate* (a fact not expected to be lost on the Edgewater developers as they continue to sell the 'benefits' of small-town living with sensible commuter transportation convenience.) In nearby Verona, a similar rebirth of the riverfront is occurring, including the establishment of a rowing clubhouse and center. And all along the southern bank of the Allegheny River, a commitment to reestablishing a portion of the former railway areas to recreational walking/biking trail usage (i.e., the "Rails-to-Trails" initiative) continues to build momentum. The above examples, and many more besides, illustrate the integral relationship which exists today, and really has always existed, between our riverfront communities, our concerns for our waterways, and the transportation systems that once connected them – and which can do so once again.

Committee on Transportation and Infrastructure  
Subcommittee on Railroads, Pipelines and Hazardous Materials  
6/22/09 Field Hearing, Pittsburgh, PA  
Page 3 of 3

Related **AVCR** operational plans include the establishing of a vehicle maintenance facility; several park-and-ride lots; and small stations – the development of which will collectively create local jobs and generate some measure of local economic activity.

With the Subcommittee's support and encouragement of establishing the **AVCR**, not only will weekday suburban-to-city commuters benefit; residents in one riverfront community will be encouraged to shop in another community along the rail line; an Arnold shopper will ride to Oakmont, or a Verona shopper will travel by rail to New Kensington. The **AVCR** potentially has the power to alter the economic demographic complexion of every riverfront community that it passes through.

3. **Fuel prices.** Gasoline costs, while continuing to more recently fluctuate, will not likely ever return to the \$2/gallon levels; and more likely, will simply continue to increase. Commuter rail service reduces gas (ozone) emissions, reduces fuel consumption, reduces overall vehicular congestion, and very likely could be demonstrated to reduce personal stress levels.

In summary, we enthusiastically urge and request that the Subcommittee on Railroads, Pipelines and Hazardous Materials give serious consideration and support, to the **Allegheny Valley Commuter Rail (AVCR)** transit project; a mass-transportation initiative which we believe –

*to be a viable and functional commuter alternative for the Western Pennsylvania region and the Allegheny-Kiski Valley region in particular;*

*offers the collective ability to lessen vehicular congestion on already-overburdened and inadequate highway infrastructure;*

*will reduce fuel consumption;*

*will assist in the positive economic development of our local communities, and*

*will be positively received and supported by its constituent riverfront community users.*

Respectfully submitted,

Robert J. Fescemyer  
Mayor, Oakmont Borough

Michael L. Federici  
President, Oakmont Borough Council

Copies: Ms. Jennifer Esposito, Staff Director RP&HM Subcommittee  
Mr. Nathan Robinson, Legislative Assistant (Rep. Altmire)